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4. a. 3

JAMES BURNET,

Lord Monboddo,

One of his Majesty's Judges of the Court of Session in Scotland.

Publishid as the Act directs, 1st April, 1787, by John Stockdale, Piccadilly.

OF THE

ORIGIN AND PROGRESS

OF

LANGUAGE.

Mutum ac turpe pecus ——— ——— ———
Donec verba, quibus voces ſenſuſque notarent,
Nominaque invenere. Hor.

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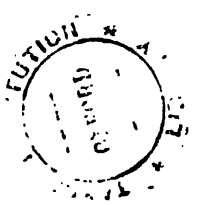

The CONTENTS.

PART I.

BOOK I.

Page

That Language is not natural to man, proved, firſt, from the origin and nature of the IDEAS expreſſed by Language; and, ſecondly, from the nature of ARTICULATION.

Introduction, - - - 1

Ch.

1. Definition of the ſubject.—Whether language be from nature, or acquired habit, - 5

2. Of capacities,—powers,—habits,—and faculties in general, - - - 12

3. Of the powers and faculties of human nature, 17

4. That man does not by nature form ideas.—Diviſion of the conceptions of the mind.—Nature of ideas, - - 42

5. Of

Ch. Pag.

5. Of Mr Locke's diviſion of ideas into thoſe of ſenſation and reflection, - - 47

6. Of the formation of ideas, - - 53

7. Of abſtract ideas.—That there are ideas which are not abſtract.—Of the three ways in which ideas exiſt, - - 86

8. Of perfect and imperfect ideas.—Of the ideas of Plato.—Of ſcience and opinion; and the difference betwixt theſe two, - - 94

9. Of Plato's peculiar notion concerning the exiſtence of ideas.—The opinion of ſome modern philoſophers upon that ſubject, - 110

10. That ideas are formed by the mind, not naturally, but in conſequence of acquired habit,—General reflections upon the ſubject, - 136

11. Continuation of the ſubject.—Ideas of reflection not from nature, - - 151

12. Of the nature of conſciouſneſs.—That it is the ſame with reflection, and belongs to the intellectual nature—Cannot, therefore, have place in a mere ſavage, - - 155

13. That ideas of external objects are not from nature, - - - 160

14. Concluſion of the ſubject of ideas.—General view of human nature, and the rank it poſſeſſes

Ch. Pag.

ſes in the ſcale of being,—compared with ſuperior natures, - - 175

15. That articulation is not natural to man, 184

16. That language is not natural to man, proved alſo from arguments *a poſteriori*. - 201

BOOK II.

That the Political State was neceſſary for the Invention of Language.—That ſuch ſtate is not natural to man, any more than Language, to which it gave birth.

Introduction, - - - 207

Ch.

1. Of the connection betwixt ſociety and language.—An inquiry into the origin of ſociety neceſſary, - - - 214

2. Diviſion of animals into ſolitary and gregarious, political and not political.—Man to be ranked in neither of thoſe diviſions, but in the

Ch. Pag.

the middle of each of them.—Other animals of the ſame amphibious kind, - 217

3. Examples from antient and modern hiſtory of men living in the brutiſh ſtate, without arts or civility, - - 236

4. Of the Orang Outang.—The account Buffon and Linnaeus give of him examined, - 270

5. Continuation of the ſubject.—General rules for definition.—Application of thoſe rules to the definition of animals in general and of man.—That this definition applies to the Orang Outang.—Differences between us and the Orang Outang accounted for. - - 313

6. Of the progreſs of civil ſociety.—That this progreſs ſhews it is not from nature, - 361

7. Authorities in ſupport of this opinion concerning the natural ſtate of man, from antient philoſophers and hiſtorians, from fathers of the church and modern divines, - 367

8. Of the cauſes which give riſe to civil ſociety, 382

9. Continuation of the ſame ſubject.—Some countries not fit to maintain men in the natural ſtate.—All countries may be overſtocked with men, as well as with other animals.—The remedies in ſuch a caſe. - - 387

10. What dangers made men aſſociate for the ſake of ſelf-defence, - - 398

11. Anſwer

Ch. Pag.

11. Anſwer to the objection, That inſtinct was ſufficient to provide men with all the neceſſaries of life, and to defend them againſt their enemies, - - 405

12. Objection anſwered, That there could be no ſociety without language.—Inſtances of ſuch ſocieties, - - 415

13. Objection, That the law of nature, as it is treated of by modern writers, ſuppoſes men to have been originally rational and political.—Anſwer tothat objection, - 428

14. Anſwer to the objection, That this ſyſtem of human nature degrades it, - 437

15. Another objection anſwered, ariſing from the inſtitution of marriage.—That inſtitution not natural, but political or religious.—This proved both from theory and fact, - 442

BOOK

BOOK III.

Of the firſt beginning of Language, and from whence it aroſe.—Of the nature of the firſt Languages.—Whether there is, or ever was, any univerſal language.

Ch.		Pag.
1.	What was required for the invention of language, beſides the conſtitution of ſociety,	456
2.	Of the ſeveral methods of communication in uſe among men before the invention of language,	461
3.	Whether there might not be a language of muſic ſingly, without any articulation,	469
4.	That language aroſe from natural inarticulate cries,	474
5.	General obſervations upon the firſt languages.—Diviſion of them into the matter and the form.—The nature of articulation, and the diviſion of elemental ſounds into vowels and conſonants,	482
6.	How	

Ch. Pag.

6. How men came to invent articulation.—That it was by imitation of other animals, on whom nature had beſtowed that gift, 489

7. Of the matter of the firſt languages.—That the words of them are long, and full of vowels.—Anſwer to objection, - - 499

8. Of the formal part of barbarous languages.—An account of it from theory, - 514

9. The preceeding theory illuſtrated by examples from the barbarous languages, - 532

10. Progreſs of the barbarous languages towards improvement.—Account of languages that are not barbarous ſpoken by barbarous nations;—ſuch as that of the Garani,—of the Algonkins,—of the Goths,—of the Laplanders,—of the Greenlanders,—of the Albinaquois.—This laſt too artificial.—The progreſs of abſtraction and generalization deduced from the progreſs of language, - 539

11. Several queſtions concerning the firſt languages.—What words of them were firſt invented, or what names of things.—Whether they have any radical words.—Whether there be only one primitive language, - 574

12. Of

Ch. Pag.

12. Of the duration of language, and the facility of its propagation.—Of the Celtic, and the great extent of country over which it is ſpread.—Of the Teutonic, and its propagation.—Of the Greek and Latin, and their connection with the Teutonic.—That the Latin is the ſame language with the antient Pelaſgic; and of the affinity betwixt the Latin and Hebrew;—alſo betwixt the Latin and Hetruſcan, - - - 580

13. Of the antiquity of the Egyptians.—That the Pelaſgi got their language from Egypt, and brought it into Greece.—That the Athenians were a colony of the Egyptians.—That Egypt was a country very proper for propagating or for inventing a language. No univerſal language now exiſting, - 626

14. Changes to which language is liable;—eſpecially in its paſſage from one people to another.—Examples of that kind.—General obſervations upon etymology, and the derivation of one language from another.—Concluſion and recapitulation, - 666

PREFACE.

THE origin of an art ſo admirable and ſo uſeful as language, and which, to the eye of a philoſopher, appears the moſt wonderful of all human arts, muſt be allowed to be a ſubject, not only of great curioſity, but likewiſe very important and intereſting, if we conſider, that it is neceſſarily connected with an inquiry into the original nature of man, and that primitive ſtate in which he was, before language was invented; a ſubject of ſo much greater dignity and importance, by how much the works of God are nobler than thoſe of men. For man in his natural ſtate, is the WORK OF GOD; but, as we now ſee him, he may be ſaid, properly enough, to be *the work of man*; and is often ſuch a piece of workmanſhip, that we may apply to him what Shakeſpear ſays of bad players, *That ſome of Nature's journeymen ſeem to have made them, and not made them well; they imitate humanity ſo abominably.*

Nor is an inquiry into this original ſtate a matter of mere ſpeculation and curioſity, with-

out uſe: For, if the hiſtory of any animal be a ſubject of uſeful knowledge, it is certainly that of our own ſpecies. Now, the hiſtory of man muſt be exceedingly imperfect without the knowledge of that original ſtate, which is the ground-work and foundation of every other through which he has paſſed. Further, if it be true, as I moſt firmly believe it is, that the ſtate in which God and nature have placed man is the beſt, at leaſt, ſo far as concerns his body, and that no art can make any improvement upon the natural habit and conſtitution of the human frame; then, to know this natural ſtate is of the higheſt importance, and moſt uſeful in the practice of ſeveral arts, and in the whole conduct of life. The object, for example, of the phyſician's art, muſt be to reſtore, as far as poſſible, the body to that natural ſtate, which muſt therefore be the ſtandard of the perfection of his art. The political philoſopher, in like manner, in forming his plans of polity, will ſtudy to preſerve the natural ſtrength and vigour of the animal, (human art can do it,) by proper diet, exerciſe, and manner of life, and to prevent, as much as poſſible, the in-

dulgence of eaſe and bodily pleaſure, by which the race of civilized men, in all nations, has been conſtantly declining from the earlieſt times, (while the animals living in the natural ſtate continue invariably the ſame), and by which, not only families have been and are daily extinguiſhed, but whole tribes and nations. And, *laſtly*, every private man, though not directed by public wiſdom, will, if he knows this natural ſtate, and is wiſe, endeavour to bring himſelf back to it as much as is conſiſtent with the ſtate of ſociety in which we live; and will, after the example of the great men of antiquity, endure, thro' choice, thoſe hardſhips, as they are commonly thought, which the ſavage only endures through neceſſity, without knowing that they are abſolutely neceſſary to his happineſs.

But, of whatever importance it may be to us to know this ſtate, we are ſo far removed from it, that even the philoſophers among us, (one only excepted *,) ſeem to

* Mr Rouſſeau, a very great genius, in my judgement, but who has been thought whimſical and odd, for having ſaid ſo much in commendation of the natural ſtate of man.

know nothing of it: And as to the vulgar, I believe it will be impoſſible to convince them, that ſuch a ſtate ever exiſted, or could exiſt. Nor need we much wonder at this, when we conſider, that man is ſo much a creature of art, that it is a matter of nice diſcernment to ſeparate what is artificial in him from what is purely natural. But, unleſs we know what man is by *nature*, we cannot be ſaid to know the *natural hiſtory* of man. And it is really ſurpriſing, that in an age, in which natural hiſtory has been ſo diligently cultivated, this part of it, ſo much more intereſting to us than any other, ſhould have been neglected. His nature, as far as concerns the ſtructure and organization of his body, has been ſufficiently ſtudied: But is not the natural ſtate of his better part, the mind, much more deſerving our inquiry? For my part, I do not know any ſpeculation more curious, or more intereſting, than to inquire what kind of animal the man of God and nature is, in contradiſtinction to what man has made himſelf.

My opinion upon this ſubject will, I know, be thought new and ſingular; but

it is only an antient opinion revived; for I have ſhewn that it was the opinion of the antient philoſophers, as many as have treated of the original ſtate of man before ſociety or civilization *. Further, I have proved, by the teſtimony of hiſtorians and travellers, both ancient and modern, that, in fact, men have been found, very nearly, if not altogether, in that original ſtate †. And I have made it, at leaſt, highly probable, that it does at preſent actually exiſt in the woods of Angola, and other parts of Africa, where races of wild men, without the uſe of ſpeech, are ſtill to be found ‡. And, in order to account for the difference between ſuch men and us, I have ſhewn, from ſeveral inſtances, the alteration that culture makes upon other animals, and likewiſe upon vegetables ‖.

The inquiry, whether language be natural or not to man, has led me very far into the philoſophy of mind; a philoſophy, which, of all others, is the moſt pleaſing to

* Book II. Cap. vii.
† Book II. Cap. iii. ‡ Ibid. Cap. iv. v.
‖ Ibid. Cap. v.

me, as it takes its materials from nothing without us, but from the mind itſelf alone; and as it reſts upon the cleareſt of all evidence, that which ariſes from conſciouſneſs. Such a philoſophy, one ſhould have thought, would have been long ago brought to perfection among us; and yet, if I am not greatly miſtaken, I have ſhewn, that there are ſeveral diſcoveries in it ſtill remaining to be made; or, what is the ſame thing, that have been made two thouſand years ago, but forgotten or overlooked in this age. For I do not pretend to have invented any thing. The only merit I claim is that of having applied to better maſters of philoſophy than any now to be found.

As to the metaphyſical philoſophy in this volume, I have elſewhere made an apology for it *; and if, notwithſtanding, I ſhould be thought to have mixed too much of it with my ſpeculations concerning language, I hope I ſhall be forgiven by the learned and pious reader, who will be pleaſed to ſee the contraſt betwixt the religious and truly ſublime metaphyſics of the great ancient philoſophers, and the impious abſurdities,

* Book III. Cap. viii. p. 525.

by which the vain pretenders to philoſophy of our time have diſgraced this nobleſt of ſciences.

If it be true, what I have heard, but can ſcarcely believe, that I have given offence to any ſenſible Chriſtian, by what I have ſaid concerning the natural ſtate of man, and the invention of language; I flatter myſelf, that I have entirely removed it by the additions and explanations in this ſecond edition. Had my philoſophy led to any opinions tending to overturn the eſtabliſhed religion of the country, I ſhould have thought it my duty, as a good citizen, never to have publiſhed them, but to have kept them as ſecret, as I would have kept a poiſon that I had diſcovered. But the philoſophy I have learned, and which is no other than the philoſophy of the primitive church, ſo far from having any tendency of that kind, lays down, as philoſophical truths, ſome of the fundamental doctrines of Chriſtianity, particularly, the fall of man from a more exalted ſtate, in which he was once placed *. In that ſtate, there were, no doubt, many faculties belong-

* Book I. Chap. x.

ing to his nature, of which he is now no longer poſſeſſed; and, among others, he may have had the faculty of communicating his thoughts by articulate ſounds, which were underſtood, as ſoon as uttered, by thoſe who heard them. But this natural faculty, as well as others, we may ſuppoſe that he loſt upon his fall; and as the curſe then pronounced upon him was, that he ſhould acquire every thing by his own labour and induſtry, he was obliged to invent language, together with the other arts of life. If all this does not ſatisfy, but it muſt be ſtill held an article of faith, that language is either natural to man, even in this ſtate of his exiſtence, or revealed to him, and that this original language never could have been loſt in any nation, by the many various calamities that have befallen the human race in different countries and different ages of the world, or that, if it were loſt, it was again revealed; I have the comfort to think, that I am not the only one that has erred in this point; but that divines of great name, both ancient and modern, and even a father of the church, have been in the ſame, nay, a greater error: For they have affirmed poſitively what I

have only ſuppoſed to be poſſible, namely, that language was invented by men, not revealed from heaven *.

When I began this work, I thought the ſubject was new and untouched by any author before me; but, in going on with it, I recollected, that I had read, in Mr Rouſſeau's treatiſe of the Inequality of mankind, ſomething upon the ſubject. Having, therefore, looked again into that work, I found that this ingenious author had indeed ſtarted the inquiry, but had not proſecuted it far, having ſtuck at this difficulty, *Whether language was more neceſſary for the inſtitution of ſociety, or ſociety for the invention of language.* In that treatiſe Mr Rouſſeau mentions a work of the Abbe de Condillac, member of the Royal Academy of Berlin, entitled 'An Eſſay on the Origin of Human Knowledge.' This work I have not ſeen; but I have read an extract from it, in the ſecond volume of the Critical Review, by which I perceive, that he proceeds, as I do, upon the ſuppoſition that language was invented, of which he ſeems to have no doubt. He agrees

* Book II. Cap. vii. p. 375. et ſeq.

with me likewiſe, that, before men uſed language, they converſed together by ſigns and inarticulate cries: That, from theſe laſt, language was formed: And that the firſt languages had a great deal of proſody, or muſical tones, which he ſeems to think as natural to man as articulation. Thus far, therefore, I have the pleaſure to find, that I agree with this author, who appears to be an ingenious man. But, as his book is chiefly upon the operations of the mind, ſo that a ſmall part of it only is employed upon language, I do not think it could have been of great uſe to me. The ſubject, therefore, may ſtill be conſidered as new; and ſo I find it appears, even to the moſt learned of my acquaintance, and whoſe ſtudies have been employed particularly upon language. The reader muſt not, therefore, expect to find any thing perfect upon a ſubject ſo new, and of ſuch variety and extent, even in this ſecond edition, ſo much inlarged, and, I hope, likewiſe amended, by the many uſeful hints I have got from ſeveral, who have done me the favour to correſpond with me upon occaſion of the publication of the firſt edition. Among theſe, there

was one, by whoſe correſpondence I was both inſtructed and honoured; whoſe obſervations on my work, which he was pleaſed to give me at ſome length, I valued the more, that he was himſelf an author of the firſt claſs, and an excellent judge of writing. He is ſince dead, lamented by all the lovers of virtue and learning. From this deſcription, the reader will eaſily gueſs that I mean the late *Lord Lyttelton.*

OF THE ORIGIN AND PROGRESS OF LANGUAGE.

INTRODUCTION.

AS the uſe of ſpeech is ſuppoſed to be that which chiefly diſtinguiſhes us from the brute creation; and is truly ſo, if by *ſpeech* we underſtand, not only the mere words or ſounds of a language, but the conceptions of the mind that are ſignified by thoſe ſounds; it is a matter of curious inquiry, from whence we have derived this diſtinguiſhing prerogative of our nature; how it firſt began; and by what degrees it arrived to that ſtate of perfection to which it has been brought, if not among us, at leaſt in other ages and nations of the world. This

inquiry becomes the more intereſting, as well as of greater curioſity, when we conſider, that it leads us back to what may be called the *origin* of the *human race;* ſince, without the uſe of reaſon and ſpeech, we have no pretenſions to *humanity*, nor can with any propriety be called *men;* but muſt be contented to rank with the other animals here below, over whom we aſſume ſo much ſuperiority, and exerciſe dominion chiefly by means of the advantages that the uſe of language gives us. From this *birth* of human nature, as it may be called, we will endeavour to trace its progreſs to its ſtate of *maturity.* This progreſs, in the individual, is very well known; but we propoſe here to exhibit the ſpecies itſelf in its *infancy*,—firſt mute; then liſping and ſtammering; next by ſlow degrees learning to ſpeak, very lamely and imperfectly at firſt; but, at laſt, from ſuch rude eſſays, forming an art the moſt curious, as well as moſt uſeful among men. The ſubject is, ſo far as I know, entirely new; no author, antient or modern, that has fallen into my hands, having profeſſedly treated of it. And though I have met with hints concerning it in the courſe of my reading, they

are ſuch as have rather excited than ſatiſfied my curioſity.

Theſe reaſons have induced me to ſet down, and give to the public, my thoughts upon this ſubject, which are the fruit of much ſtudy and inquiry, continued with ſome interruptions for ſeveral years, and of many materials collected during that time. But if, notwithſtanding, in this undiſcovered country, where I am guided by no light or track, I have loſt my way, I hope to be forgiven by every reader of ſenſe and candour, who will allow at leaſt this merit to my work, that I have opened a new field of ſpeculation, in which even my errors may be of uſe, by ſerving as beacons to direct into the right courſe men of greater learning and abilities.

The work will be divided into *three* parts. The *firſt* will treat of the *origin* of language, and of the nature of the *firſt* languages; or, as they may be more properly called, rude eſſays towards language, which were practiſed before the *art* was invented.— The *ſecond* will explain the nature of the *art*, ſhewing in what it chiefly conſiſts, and how it differs from thoſe firſt untaught attempts to ſpeak. In

this part of my work, I will give an account of thoſe parts of language which appear to me the moſt artificial, and of moſt difficult invention. I will alſo treat of *ſtyle*, or compoſition in words, as belonging to the art of language; and I think it will not appear foreign to my ſubject to ſay ſomething likewiſe of *poetry* and *rhetoric*, being arts of which language furniſhes the materials.—The ſubject of the *third* and *laſt* part will be the *corruption* of language; of which I ſhall endeavour to aſſign the cauſes, and trace the progreſs.—The firſt part will be chiefly philoſophical, mixed however with a good deal of hiſtory, and facts, by which I ſhall endeavour to ſupport my theories, and philoſophical ſpeculations. The two laſt parts will be grammatical and critical. The ſtyle will be plain and didactic, ſuch as is ſuitable to a ſubject that is to be treated as a matter of ſcience. It will not therefore have that mixture of the *rhetorical* and *poetical*, which is ſo common in the faſhionable writings of this age, whatever the ſubject be, and which pleaſes the vulgar ſo much; For, as I do not write for the vulgar, I will not adapt my ſtyle, any more than my matter, to their taſte.

PART I.

BOOK I.

CHAPTER I.

Definition of the Subject.—Whether Language be from Nature, or acquired Habit.

BY language I mean *the expreſſion of the conceptions of the mind by articulate ſounds.* Theſe conceptions are either of *particulars*, i. e. individual things, or of *generals.* No language ever exiſted, or can be conceived, conſiſting only of the expreſſion of individuals, or what is commonly called *proper names:* And the truth is, that theſe make but a very inconſiderable part of every language. What therefore conſtitutes the eſſential part of language, and makes it truly deſerve that name, is the expreſſion of *generals*, or *ideas*, according to the language of the philoſophy that I have learned. For, as to the name of *general ideas*, by which they are commonly

known, it ſuppoſes, that the conceptions of individuals, that is, the perceptions of ſenſe, are likewiſe ideas; from which it is neceſſary to diſtinguiſh the conceptions of generals by the name of *general ideas*. But I cannot approve of introducing into philoſophy a language which confounds under one name two things ſo different in their natures, as the operations of *ſenſe* and of *intellect*; a confuſion which, in my apprehenſion, has given riſe to very great errors in philoſophy, and to ſome extravagant paradoxes, that have been advanced of late years, as repugnant to the common ſenſe of mankind as to ſound philoſophy. The definition ſo underſtood I hold to be what is properly called *language*. For, though we ſay, *the language of looks*, and of *geſtures*, or ſigns, ſuch as our dumb perſons uſe; alſo *the language of inarticulate cries*, by which the brutes ſignify their appetites and deſires; yet, in all thoſe ſenſes, the word is uſed metaphorically, and not as it ought to be uſed in the ſtyle of ſcience. And thus much may ſuffice at preſent for the definition of our ſubject. We ſhall endeavour, in the ſequel, to make it fuller; and, particularly, we ſhall explain in what way language

expreſſes, whether by ſigns *natural* or *artificial**.

* In this ſenſe which I have given to *language* the Greek word λογος is commonly uſed, denoting both the ideas, and the ſounds uſed to expreſs them; that is, *ſounds ſignificant*. But it may be obſerved, that it is often uſed to denote only the principal part of ſpeech; namely, the *ideas*, and that combination of them we call *reaſon*, which muſt neceſſarily precede the uſe of ſpeech. This ambiguous ſignification of the word has given occaſion to the diſtinction made in the Peripatetic ſchool betwixt λογος ἐνδιαθετος, and λογος προφορικος, that is, the inward operations of the mind, and thoſe operations enunciated by ſpeech. The not attending to this diſtinction has led tranſlators into great miſtakes, and even the tranſlators of our ſacred writings. For, in that famous paſſage in the beginning of St John's goſpel, which contains one of the ſublimeſt myſteries of the Chriſtian theology, the Latin tranſlator has rendered λογος by *verbum*. And, in like manner, our Engliſh tranſlators have rendered it by *word*, and have made St John ſay, that *the word* was *God*, which, to me at leaſt, does not convey any meaning at all: For how can I underſtand, that *word*, that is to ſay, *ſpeech*, or ideas expreſſed by articulate voice, is *God?* But λογος, in this paſſage, is not λογος προφορικος, or *reaſon enunciated;* but it is λογος ἐνδιαθετος, i. e. *reaſon in the mind of the Deity*, according to which every thing was made. This *reaſon* is the ſecond perſon of the Chriſtian Trinity, by whom we are told the viſible world was created, and anſwers to the θεος δημιουργος of Plato, who is alſo the ſecond perſon of his Trinity. For that Plato knew the doctrine of the Trinity (however he came by that knowledge) is evident: but he kept it ἐν ἀπορρητοις, not to be revealed but to thoſe who were initiated in his philoſophy. And the other two perſons in

From this definition it appears, that language conſiſts of two things; namely, ſounds, and the conceptions of the mind ſignified by thoſe ſounds. The firſt is, in the truly philoſophical language of my worthy and learned friend Mr Harris*,

his Trinity correſpond likewiſe with the ſame perſons in the Chriſtian Trinity: for he has the ſupreme God, or God the Father, and alſo the ψυχη του κοσμου, which anſwers to the Holy Ghoſt. See *Euſebii Praepar. Evangel. lib.* 11. *cap.* 14.—20. from which paſſage it appears, that *Euſebius* underſtands λογος in this paſſage of St John as I do; and he quotes a *Platonic* writer, one *Amelius*, who underſtands it ſo alſo, and wonders where that *Barbarian* (ſo he calls the Evangeliſt) had learned ſo ſublime a theology, not knowing that this was the theology of the Jews many hundred years before his maſter *Plato* was born.

There are, I know, zealots who are much offended with my finding fault even with the Vulgate Tranſlation, as it is called, of the Bible uſed in the Popiſh countries, and with our Engliſh tranſlation, for following it rather than the Greek original. But their ſenſeleſs clamour will not perſuade me to retract what I have ſaid, unleſs they can ſhew that any antient father of the church, or modern divine, has ſaid that *ſpeech*, or any part of ſpeech, was God; or that, in Engliſh, *word* does not denote a part of ſpeech. And I am perſuaded every ſenſible divine will thank me for clearing the ſacred Text, containing ſuch an important doctrine, from the imputation of ſo abſurd a meaning.

* The Author of *Hermes*, a work that will be read and admired as long as there is any taſte for philoſophy and fine writing in Britain.

called the *material* part of language, and the other the *formal* part; a manner of ſpeaking taken from the antient philoſophy; according to which, every corporeal ſubſtance is compoſed of *matter* and *form*. The *matter* is ſuppoſed to be common to all bodies; but the *form* is peculiar to each, making it that which it is, in contradiſtinction to every thing elſe: As in this caſe the human voice, which makes the material part of language, is a matter common to other things, as, *e. g.* to muſic, and to inarticulate cries of different kinds; whereas the formal part, that is, the ſignificancy of ideas, is peculiar to language, conſtituting what we call *a word*; which, though it had the matter, that is, the voice, and modified too by articulation, yet, if it ſignified nothing, would not deſerve that name. Of theſe two parts of language, it is evident that the formal is by far the more excellent, by how much the thing ſignified is more excellent than the ſign, and the mind than the body: For this part of language belongs altogether to the mind; whereas the other is no more than the operation of certain organs of the body.

The firſt thing to be conſidered in this

matter is, whether language be at all a work of *art*, or *acquired habit?* or whether, according to the opinion of ſome, we do not ſpeak by *nature*, without uſe or inſtruction, in the ſame manner as we perform many functions of the animal nature? If this laſt be the caſe, it is in vain to inquire concerning the origin of language, which, according to this hypotheſis, muſt be coeval with the animal. This, therefore, is a preliminary queſtion that muſt be decided before we go farther; but, in order to decide it, we muſt fairly ſtate it.

And, in the *firſt* place, Thoſe who hold this opinion, will not, I ſuppoſe, carry it ſo far as to maintain, that men, without uſe or cuſtom, without imitation or inſtruction, would ſpeak a *formed regular* language, ſuch as is ſpoken by civilized nations; and which, it is well known to every one that has the leaſt knowledge of grammar, is an *art*, and a very great art too. But their opinion, when fairly ſtated, is, as I conceive, this, That men do naturally uſe articulate ſounds to expreſs the conceptions of their mind; very rudely and imperfectly, no doubt, at firſt, till by art they are improved, and acquire the form of a regular language.

But even ſuch a language, they certainly do not maintain, that men ſpeak from the time of their birth, in the ſame manner that they perform the natural operations of breathing, digeſting, or the action of ſucking, by which an infant takes in the nouriſhment that is neceſſary to it. But they will ſay, that a man, when he comes to be of perfect age, will uſe articulate ſounds to expreſs his conceptions, without art or inſtitution, and as naturally as he will perform many other actions, for the preſervation of the individual, or the propagation of the kind. And ſome, perhaps, of thoſe who hold this opinion, may require further, in order to produce a language, ſome ſociety and mutual intercourſe, not conceiving how a ſolitary ſavage ſhould invent a method of communication for which he has no uſe. And this laſt, I find, is the opinion of a late French writer upon the *mechaniſm* of language *, and who pretends to have conſidered the ſubject philoſophically; for he requires, that men ſhould have lived ſome time together: But he is perſuaded that a

* This book is entitled, *Traité de la formation mechanique de langues, et des principes phyſiques de l'etymologie*, printed at Paris 1756, in 2 vols 12mo.

parcel of children living ſo, would, by the time they came to be of age, have formed ſome kind of language. On the other hand, I maintain, that the faculty of ſpeech is not the gift of nature to man, but, like many others, is acquired by him; that not only there muſt have been ſociety before language was invented, but that it muſt have ſubſiſted a conſiderable time, and other arts have been invented, before this moſt difficult one was found out; which appears to me of ſo difficult invention, that it is not eaſy to account how it could at all have been invented.

CHAP. II.

Of Capacities,—Powers,—Habits,—and Faculties in general.

THE queſtion ſtated in the preceeding chapter never has been fully conſidered, ſo far as I know, though it appears to me curious and intereſting. I will therefore endeavour to examine it to the bottom; and, as it concerns powers and faculties, before I come to ſpeak of the faculty of ſpeech in particular, I think it will be neceſſary, for the better underſtanding

the argument, to premiſe ſome obſervations concerning powers and faculties in general.

With reſpect to which, there are four things that deſerve to be diſtinctly conſidered: 1*ſt*, The *energies*, or operations of ſuch *faculties*. With theſe I begin; becauſe they are firſt in the order of our conceptions, being perceived by the ſenſe; whereas powers and faculties are latent things, and an object of *intellect*, not of *ſenſe*. 2*dly*, There is the *faculty* which is the immediate cauſe of thoſe *energies*, and without which we cannot conceive them to be produced. 3*dly*, The *habit* * or diſpoſition which is productive of the *faculty*; for every faculty is the reſult of a previous habit or diſpoſition, without which it cannot exiſt. And, *laſtly*, The *mere power*, or capacity of acquiring ſuch *habit*. Theſe two laſt are both, in the language of antient philoſophy, called by the name of *power* †: But the diſtinction is made betwixt that *power*

* The word *habit* I uſe in the ſenſe of the Greek word ἕξις. This I think proper to obſerve; becauſe the word in Engliſh is frequently uſed to denote that cuſtom or uſe by which any habit is formed, by a metonymy, not unuſual in language, from the *effect* to the *cauſe*.

† Δυναμις.

which immediately produces the *act*, and that which is remoter, and may be ſaid to be only the *power of power* †. And I would chuſe to diſtinguiſh them by different names, calling the one *faculty*, and the other *capacity*. And as *faculty* and *habit*, though in their natures diſtinct, are ſo neceſſarily conjoined, that the one can never exiſt without the other, however neceſſary it may be in other arguments to diſtinguiſh them, I do not think it is ſo in this; and therefore I ſhall, for the greater part, ſpeak of them indiſcriminately, under the name of either *faculty* or *habit*, as it happens. But as there is no ſuch neceſſary connection be-

† See this diſtinction made by *Ariſtotle*, in his 8th book, *De Phyſ. Auditione*, and explained at length by his commentator *Simplicius*, fol. 281. The example *Ariſtotle* gives, is that of a man who has not learned any art, but has the capacity to learn; and one who has learned it, but is not actually performing its energies. Both are ſaid to be artiſts δυναμει, but in different ſenſes; which therefore I have choſen to diſtinguiſh by different appellations. *Simplicius* very well obſerves, that this ſecond kind of power, or faculty, as I chuſe to call it, lies in the middle betwixt *mere power*, or capacity alone, and *energy*, participating of each; that is, betwixt what is moſt imperfect in nature, and what is moſt perfect; for mere capacity is moſt imperfect, pure energy moſt perfect.—— See the following note.

twixt the *faculty* and the *energy*, or betwixt the *capacity* and the *faculty*, (for the *faculty* may not operate, nor the *capacity* be carried the length of *faculty*), theſe two muſt be conſidered and treated of as diſtinct from *energy*, and from one another.

It will be neceſſary, for the ſake of thoſe who are unacquainted with the antient philoſophy, to illuſtrate my meaning by ſome examples, both from *nature* and from *art*. Every animal, and vegetable too, when it is firſt produced, has no more than the *mere capacity* of generating, or producing its like; but, in proceſs of time, this capacity grows into *habit*, and the conſequential *faculty*; and when opportunity offers, the faculty is exerciſed, and produces *acts and energies*. And with reſpect to *art*, a man when he is born, has, from nature, the *capacity* of being a *muſician*, *e. g.*; afterwards he forms the *habit*, and acquires the *faculty*; and then he *actually performs* when he thinks it proper. Theſe examples will be ſufficient to ſhew what I mean by the terms I have uſed; and theſe differences may be obſerved betwixt art and nature in this matter. In the *1ſt* place, Capacity merely is all from nature; for, even in matters of art, the

capacity that any man has to become an artiſt, or that any ſubject has to be operated upon by art, is from nature ſingly. *2dly*, Habit or faculty is, in matters of art, acquired by uſe, imitation, or inſtruction; whereas, in natural things, it is the production of nature ſingly, without any preceeding uſe, exerciſe, or inſtruction. And, *laſtly*, The energies in natural things proceed either from certain laws of nature, which is the caſe with reſpect to inanimate things, or from a certain inward principle, commonly known by the name of *inſtinct*, as in the caſe of brute animals: But, in matters of art, they proceed from that impulſe, moving the rational mind to action, which we call *will* *.

* What is ſaid here of *powers* and *capacities*, is, I think, ſufficient for the preſent purpoſe. Who would know more of this matter, may read what follows, taken from the abſtruſe or *Acroamatic* philoſophy, as *Ariſtotle* calls it, contained in his books of *Phyſics* and *Metaphyſics*. All things in nature exiſt either in capacity merely, or actually and really; that is, as it is expreſſed by Ariſtotle, either δυναμει, or ενεργεια. Betwixt theſe two there is a *progreſſion* both in *nature* and *art*, and which is the cauſe of all the productions of either; for every thing that is generated, or produced, proceeds from a ſtate of nothing more than capacity, to a ſtate of actual exiſtence. Thus plants and animals are produced from ſeeds and em-

CHAP. III.

Of the Powers and Faculties of Human Nature.

THus far of powers and faculties in general. But, before we come to ſpeak of the faculty of ſpeech in particular, it may

bryos, which are no more than plants and animals in capacity: And, with reſpect to works of art, the ſtatue is in the block of marble δυναμει, but it does not actually exiſt till it gets its form from the artiſt; and the artiſt himſelf was at firſt only an artiſt in capacity. This progreſs, by which every thing in nature or art is produced, is what is commonly called *motion*: Which is therefore ſomething more than mere capacity, but leſs than energy or actual exiſtence; for it cannot be ſaid to have any fixed or permanent exiſtence of any kind, nor to be in any ſtate, being truly a paſſage betwixt two ſtates; ſo that it exiſts only in ſucceſſion, and not any two parts of it together. This ſo ſhadowy being, and ſo difficult to be apprehended, Ariſtotle has, with wonderful acuteneſs and ſubtlety, defined and made an object of *intellect*: And as it lies betwixt two extremities, *capacity*, and *energy*, or actual exiſtence, he has given us a twofold definition of it, the one taken from the one extreme, and the other from the other. The firſt is taken from the ſtate of *capacity* from which it proceeds: And in this way it is defined to be, ἐντελεχεια του ἐν δυναμει ἢ ἐν δυναμει; which may be tranſlated thus, *the perfection of what is in capacity, conſidered merely as in capacity.* The meaning of the laſt words is, that nothing is conſi-

not be improper, firſt, to take a general view of the *powers of human nature*, beginning with thoſe that are from *nature immediately*, and next conſidering ſuch as are *acquired*.

dered in the thing that is moved, but merely its capacity: So that motion is the perfection of that capacity, but not of the thing itſelf. The reaſon why it is ſaid to be the perfection of *capacity* is already hinted at, namely, that it is ſomething more than mere capacity; for it is capacity exerted, which, when it has attained its end, ſo that the thing has arrived at that ſtate to which it is deſtined by nature or art, ceaſes, and the thing begins to exiſt ἐντελεχείᾳ: And therefore Ariſtotle has very properly called this exertion *the perfection of capacity*, ſince capacity can go no further.——The other definition is taken, as I have ſaid, from the other extreme, namely, the ſtate to which the progreſſion is, that is, *energy*, or actual exiſtence. And in this way it is defined to be ἐνέργεια ἀτελὴς, or *imperfect energy*; for, as it is the perfection of capacity, ſo it is the imperfection of energy. It is capacity carried its utmoſt length; but it ſtops on this ſide energy.

This is the account given by *Ariſtotle*, in his books of *General Phyſics*, (commonly entitled *De Phyſica Auditione*), of the nature of motion, taken, as we ſee, from a comprehenſive view of nature and art, and of every kind of generation and production. None of our modern philoſophers, ſo far as I know, have given a general definition of it that is in the leaſt ſatisfactory, though they muſt all confeſs, that it is the grand agent in all natural operations; and therefore the knowledge of its nature muſt be the foundation of all natural knowledge. Mr *Locke* has ſaved himſelf the trouble of ſeeking for a definition of it, by telling us, that it is undefineable, becauſe it is a ſenſation, or perception of ſenſe; and he has en-

The firſt operate without any previous uſe, exerciſe, or inſtruction: The other are the fruit of our own induſtry; and, before they can be exerciſed, the habit muſt be firſt form-

deavoured to ridicule *Ariſtotle*'s definition of it in a barbarous tranſlation, not underſtanding, as I ſuppoſe, *Ariſtotle* in his own language. The reaſon that he gives for its being undefineable, will apply equally to every perception of ſenſe, of whatever kind: And to be ſure it is true, that no individual ſenſation or perception of ſenſe can be defined; for this very reaſon, that it is a perception of ſenſe, and not an object of intellect. But Mr *Locke* ought to have conſidered, that, from thoſe *perceptions of ſenſe*, the mind forms *ideas*, which are the proper objects of *intellect*; and therefore capable of definition; and of ſcience, which cannot be without definition. And all thoſe perceptions of ſenſe which he calls *ſimple ideas of ſenſation*, might, when generaliſed by the intellect, be defined as well as the perception of motion, by a genius as acute as Ariſtotle's, aſſiſted by proper obſervations and experiments. But the great defect of Mr Locke's philoſophy is, that having, in the very outſetting, confounded the operations of *ſenſe* and *intellect*, under the common name of *ideas*, he never afterwards ſufficiently diſtinguiſhes them. Other modern philoſophers have attempted to define motion by *change of place* or *ſituation*. But that is no more than the *effect* of *motion*; and it ſtill remains to be inquired, what ſort of thing it is that produces this effect. Beſides, if it were a good definition, it is not general enough, comprehending only one kind of motion, viz. that from place to place; whereas Ariſtotle's definition comprehends every kind of change or alteration in body, whether with reſpect to place, magnitude, or quality.

ed, by art, experience, or cuſtom. Of the firſt kind, moſt certainly, are thoſe with which we are born; and with them therefore we ſhall begin.

They are but few in number: one of the moſt remarkable of them is the power of *motion*, and that natural impulſe above mentioned, well known by the name of *inſtinct*, which directs an infant to apply that power of motion to the drawing its nouriſhment from the breaſt of the mother by the action of ſucking. Beſides this, we have that habit of body which makes us ſuſceptible of nouriſhment, of growth, and all the vital functions. Whether we have diſtinct perceptions of ſenſe, ſuch as of ſeeing and hear-

This is the general doctrine of *capacities* and *energies*, and the *tranſition* from the one to the other, according to the notions of the Peripatetic ſchool: But there is ſtill a *higher* philoſophy upon this ſubject, which teaches us, that this diſtinction betwixt *capacity* and *energy* takes place only in *inferior* beings; and that there is a *higher order* of being, in which there is no *progreſs*, *motion*, or *change* of any kind, and in which there is not the imperfection of *mere capacity*, but all is *habit* and *faculty*, not productive of *energies occaſionally*, as with us, but *conſtantly energiſing*. See *Ariſt. Metaph. lib.* 9. *cap.* 8. But this belongs to a philoſophy far beyond *ſenſe* and *nature*; and which, for that reaſon, is very properly deſcribed to be μετα τα φυσικα; that is, with reſpect to our capicities, and the order of teaching, *after phyſics*; but, with reſpect to the nature of things, *the firſt philoſophy*.

ing, I think may juſtly be doubted; and I will endeavour to ſhew, in the following part of this book, that we have them not in any the leaſt degree of perfection, till in proceſs of time the organs have acquired a certain degree of firmneſs, and we by experience have learned the proper uſe of them.

Theſe ſeem to be all the *faculties* which we are *actually* in poſſeſſion of when we firſt come into the world. The reſt of our nature at that time is made up of *capacities merely*, or, to uſe the faſhionable word, which I think not improper, of *capabilities*: for it is with us, as with other animals, at the time of our birth, almoſt all the powers of our nature lie concealed, and, as it were, folded up, till time and opportunity diſplay them, and bring them into exertion: And indeed in that ſtate, I cannot diſcover, that, with reſpect to actual powers, either of mind or body, there is any difference betwixt us and thoſe other animals; or, if there be any, the advantage is on the ſide of the brute; for his body then is commonly more vigorous, and his inſtincts ſtronger and more active.

But with reſpect to latent *powers* and *capabilities*, there appears to be a wonderful

difference, inſomuch that it is difficult to ſay, even at this day, after ſo much obſervation and experience, what the capabilities of a nature ſo various and ſo excellent as ours are. This only we know certainly, that men have actually exerted wonderful powers both of body and mind; nor is it poſſible to determine how much farther they might have been carried by conſtant exerciſe and inſtruction, continued through the courſe of a long life. It is even difficult to determine, how far the natural capacities of the brutes might go with proper culture; but man, we know, may, by education and culture continued for many years, be transformed almoſt into an animal of another ſpecies. Thus, with reſpect to his body, though he is undoubtedly by nature a terreſtrial animal, yet he may be ſo accuſtomed to the water, as to become as perfectly amphibious as a ſeal or an otter.—And, with reſpect to the mind, it is impoſſible to ſay how far ſcience and philoſophy may carry it. The Stoics pretended, in that way, to make a *god* of a *man;* and there is no doubt but the human nature may, by ſuch culture, be ſo exalted, as to come near to what we conceive of ſuperior natures, and perhaps even

to poſſeſs the rank of ſuch as are immediately above us in the chain of being.

The next thing to be conſidered is, what natural powers we are poſſeſſed of, when we have attained to perfect age. And theſe I think may be reduced to the following heads: *1ſt*, The perfect uſe of all the five ſenſes; *2dly*, Greater ſtrength of body, and power of bodily motion; *3dly*, The faculty of propagating the kind; and, *laſtly*, with reſpect to the mind, *inſtinct*, at that time of life, is more perfect, and leſs liable to error, directing us not only to the preſervation of the individual, but to the continuation of the ſpecies. This laſt inſtinct ſtill remains; and alſo another, which makes us abhor deſtruction, and fly from danger and pain: but I am perſuaded, that, before we were ſo much under the guidance of reaſon, or rather that baſtard kind of reaſon commonly called *opinion*, we had many more inſtincts, directing us to the means of preſerving and providing for both the individual and the offſpring; for I cannot ſuppoſe that nature left us unprovided in this reſpect, more than other animals; eſpecially if it be true, as I ſhall endeavour to ſhew, that inſtinct was as needful to us at firſt as to other animals, as we

had not then the exercise of reason, nor for a considerable time thereafter: But, after we had formed opinions concerning what was good or ill, profitable or otherwise, in human life, and forsaking the guidance of nature and instinct, had resigned ourselves to the government of those opinions, and become the artificial creatures we now are, we lost those instincts by degrees, and nature yielded to artificial habit.

These are the *natural* powers belonging to our species at present; and we are next to speak of the *acquired* or adventitious powers, which we have added to our natures by our own industry and sagacity. Of this kind are all the sciences, all the arts liberal and mechanic, all the commodities and pleasures of life, even civil society itself, and almost every thing belonging to it: And, if we rightly consider the matter, we shall find, that our nature is chiefly constituted of acquired habits, and that we are much more creatures of custom and art than of nature. It is a common saying, that habit (meaning custom) is a second nature. I add, that it is more powerful than the first, and in a great measure destroys and absorbs the original nature: For it is the capital

and diſtinguiſhing characteriſtic of our ſpecies, that we can *make* ourſelves, as it were, over again, ſo that the *original* nature in us can hardly be ſeen; and it is with the greateſt difficulty that we can diſtinguiſh it from the *acquired*.

What chiefly makes this difficulty, is the facility with which we perform the operations that proceed from thoſe acquired habits, and which makes us think them natural. Then many of them are acquired by ſuch inſenſible degrees, and in our earlieſt years, that we do not perceive the progreſs that has been from *capacity* to *habit*; and, finding ourſelves poſſeſſed of them, without knowing how, we raſhly conclude them to be the gift of nature.

Before I come to apply this obſervation to language, I will give ſome other inſtances of our miſtaking acquired habits for natural; and for the ſame reaſon, namely, the facility of their operations. The perceptions of ſenſe are undoubtedly natural; but from theſe we learn, by obſervation and experience, to draw concluſions of reaſoning ſo readily and eaſily, that we miſtake them for the original perceptions of ſenſe; *e. g.* by the ſenſe of ſeeing, we

perceive nothing but the colour, figure, magnitude, and motion of the object *. Theſe are all that are painted upon the *retina* of the eye; and it is only through the medium of the pictures there that we perceive any thing by this ſenſe †: Yet the

* Colour is the primary perception of this ſenſe; the others are only conſequential. Figure, *e. g.* and magnitude, are nothing elſe but colour of a certain extent, or terminated in a certain manner.

† It is worth obſerving, though I think it has not been obſerved, that, in this ſenſe, the progreſs from the impreſſion made by the external object upon the organ to the mind, is better marked than in any other ſenſe: For, with reſpect to the other ſenſes, all we know of the matter is, that the impulſe upon the organ is propagated to the brain by certain nerves, and ſo perceived by the mind. But here there is a ſtage of the progreſſion diſtinctly marked, and now well known to all opticians, namely, the picture upon the *retina* of the eye, which was firſt diſcovered by *Kepler*, and is, I think, the greateſt diſcovery in the matter of *ſenſation* that ever was made. Nor is there any ſcience in which I think the moderns have excelled the ancients more than that of optics. In Euclid's treatiſe of optics, (if that work be truly his, and not the work of the author of the preface, who from his ſtile appears to be of a later age), he gives an account of viſion, which ſeems to us altogether abſurd. He ſays, it is produced by rays, which he calls ſometimes ἀκτῖνες, and ſometimes ὄψεις, iſſuing from the eye to the object, and forming angles at the eye, under which we ſee the dimenſions of the object. But he tells us, that we do not ſee

vulgar all believe, and even ſuch philoſophers as have not ſtudied optics, that by this ſenſe we alſo perceive diſtances; and it is common language to ſay, that we ſee a thing at ſuch or ſuch a diſtance: But the truth is, that we ſee all objects at the ſame diſtance, that is, very near, and almoſt in contact with the eye; and it is only by obſervation and experience that we learn to judge of the different diſtances of objects, either from their magnitude, as painted upon the *retina* of the eye, from the clearneſs and diſtinctneſs of the picture there, or from its dimneſs and obſcurity, from the intervening objects betwixt us and the object we

the object at once, but the eye goes over it by parts, though with a very quick progreſs, forming an infinite number of theſe angles; and yet he ſays, the more of theſe angles there are, the greater the object appears, and the more diſtinctly it is ſeen. This error of the rays coming from the eye, and not from the object, appears to have continued down to the time of *Joannes Baptiſta*, who firſt diſcovered, that the rays of light from the object, admitted through a hole into a dark room, make a picture of the objects on the oppoſite wall: And it was probably this diſcovery that led the way to Kepler's. It may be obſerved, that the Epicurean doctrine, which made viſion to be produced by the images (εἴδωλα) that came off from the ſurfaces of objects, was nearer the truth.

look at, or from certain other cauſes that have been obſerved by opticians. So that, whatever we know of diſtance, is not from ſenſe, but an inference of reaſon from the premiſſes juſt now mentioned. Thus, *e. g.* if I have been accuſtomed to ſee any known object at different diſtances, and conſequently of different magnitudes upon the *retina* of my eye, if the picture there is ſmall, I from thence infer, that the object is at a diſtance: And I make the ſame inference if the picture of it in my eye be dim and obſcure, as the picture of objects at a great diſtance muſt be; or if I ſee betwixt it and me intervening objects, of the ſize of which, and the ſpace they occupy, I have ſome notion.

Of the magnitude of objects, we have no doubt a perception by the ſenſe of ſight; but it is ſo various and undetermined, that, without the judgement of the mind, it would be impoſſible to ſay poſitively what the magnitude of any object is: For the perception of the ſenſe depends entirely upon the angle of viſion, that is, the angle under which we ſee the object; and that is greater when the object is nearer, and leſs when it is at a diſtance: So that the ſame

object appears ten times bigger when ſeen at the diſtance of a yard, than at the diſtance of ten yards; and yet we think a man no bigger at the diſtance of one yard, than at the diſtance of ten. And, even when I ſee a man or any other known object, through a teleſcope, which magnifies, perhaps, twenty times beyond the appearance to the naked eye, he does not ſeem bigger, but only nearer. How is it then that we fix and aſcertain the magnitude of objects, which otherwiſe would be ſo various and uncertain, and in that way make a ſenſe of ſo great uſe, which would elſe be of very little? My anſwer is, That it is, 1*ſt*, by the uſe of another ſenſe, viz. that of touch, by which we learn to know the true dimenſions of things; and, 2*dly*, by two acquired habits of judging: The firſt, the habit of judging of diſtances abovementioned; the ſecond, another habit of judging founded upon this, by which we correct the perception of ſenſe, and, notwithſtanding the greater image upon the *retina*, conclude the object not to be greater, or perhaps leſs, and *vice verſa*.

That this laſt judgement is founded upon the firſt, is evident from this, that, though the object be a known object, yet, if I have

not been accuſtomed to ſee it at different diſtances, or, what is the ſame thing, at different *perceptible* diſtances, as, *e. g.* the ſun, moon, or ſtars, it appears to me according to the *natural* perception I have of magnitude by the image upon the *retina:* And, if it be ſeen through a teleſcope, it appears ſo much bigger, not ſo much nearer, as in the former caſe; becauſe, not having ſeen it at greater or leſſer diſtances, I can from thence infer nothing to contradict the appearance in my eye; which cannot here, as in other caſes, be only a ſign of the diſtance, but muſt be, as it truly is by nature, an indication of the magnitude.

Another proof of this is, what happens when we are deceived with reſpect to the diſtance, as when we ſee things through a fog: For, from the dimneſs of the image upon the *retina*, we infer, that the object is at a conſiderable diſtance; and from this ſuppoſed diſtance, compared with the greatneſs of the image upon the *retina*, we conclude, that the object is much greater than it truly is. And, in this way, a dog ſeen through a miſt appears as big as a horſe, and an ordinary man looks like a giant. And thus we have here likewiſe two judge-

ments of the mind; one a falſe judgement concerning the diſtance, the other a true judgement founded upon the firſt: Which is truly an error of the underſtanding, not a fallacy of the ſenſe, as is commonly believed; for the ſenſe does not deceive us, but truly repreſents the object to us as by the laws of nature it ought to appear, being ſeen through ſo thick a medium. But it is we that deceive ourſelves, by not attending to the uncommon ſtate of the air, which would have accounted to us for the diſtant appearance of the object; and that illuſion being at an end, and the object being acknowledged to be near, the greatneſs of the image on the eye could no longer deceive us.

There are other fallacies of this ſenſe, as they are commonly called, that I ſhall but juſt mention; ſuch as a ſtick ſeeming crooked in the water, and a ſquare tower appearing round at a diſtance. Theſe are true repreſentations of the ſenſe, but apt to miſlead the mind in judging of the real figure of ſuch objects, if we are not learned enough to know the cauſes of ſuch appearances, or have not been taught by experience not to regard them. But there are, if I am not

miſtaken, other appearances of this ſenſe, which we have learned to correct ſo early, that we have loſt all knowledge and memory of them; and the true appearances, which we learn by the ſenſe of touch, are ſubſtituted in place of the falſe. What I mean is, 1*ſt*, The *double* picture of every object, one in each eye; from which I think it muſt neceſſarily follow, by the laws of viſion, that we ſee every object double; but, by conſtant experience from our infancy, having learned that the object is truly ſingle, we acquire the habit of ſeeing it only in that manner. 2*dly*, The *inverted* picture upon the *retina*; from which I infer, that at firſt we truly ſee objects inverted: For, as we undoubtedly perceive the colour, figure, and magnitude of the objects by the picture in the eye, I do not ſee how we can otherwiſe perceive their poſition. But this repreſentation of the ſenſe we have learned alſo, by the moſt early experience, to correct, and to ſet the object upon its right end. And we have been ſo long in the conſtant cuſtom of ſeeing them in that way, and the habit thereby is ſo formed, that we ſee then no longer any other way. I know there are learned opticians who differ from me in both theſe particu-

lars: But there is one thing in which I think there can be no difference of opinion, though I do not know that it ever was before obſerved; and it is this, that at firſt we ſee things only of the magnitude of the picture upon the *retina* of our eye: for the angle which that picture ſubtends, is demonſtratively equal to the angle of viſion, that is, the angle which the object ſubtends; according to the ſize of which, as we have already ſaid, we ſee things of a greater or leſs magnitude: And the object appearing cloſe to the eye, which it does according to the natural perception of the ſenſe, and conſequently at the ſame, or nearly the ſame, diſtance from the angle at the centre of the eye with the picture upon the *retina*, it is evident, that the object and the picture, ſubtending equal angles at the ſame diſtance, muſt be equal. And the only way we can account for things appearing to us ſo very much bigger is, that by experience and obſervation, ariſing from the evidence of our other ſenſes, and particularly of our ſenſe of touch, which makes a truer report, both of figure and magnitude, than our ſight, we learn to ſee things in their true dimenſions; after which, we judge of their magnitude, not

abſolutely by the ſize of the picture in the eye, but *relatively*; ſo that what forms the greateſt picture there, appears to us, *caeteris paribus*, the greateſt object. And this acquired habit of judging becomes ſo familiar to us by conſtant practice, that we overlook entirely, as in the inſtances juſt now mentioned, the original perception, and imagine we really *ſee* things of the magnitude we only *judge* them to be of.

But enough, and perhaps too much, has been ſaid, to ſhew, that, with reſpect to this ſenſe of ſeeing, we miſtake habits of judging, acquired by experience and obſervation, for the natural perceptions of ſenſe; and that we have formed the habit ſo early, and by ſuch inſenſible degrees, and perform the energies of it with ſo much readineſs and eaſe, that it requires all the attention and accuracy of a philoſopher to diſtinguiſh thoſe energies from the operations of nature; and this was all that I intended by the example.

I will only ſay further upon the ſubject of our ſenſes, that, if ſome others of them, ſuch as that of hearing and feeling, were to be as accurately analyſed and examined as the ſenſe of ſeeing has been, I believe it might be found, that we learn to hear and

feel as well as to ſee, and that a great part of our infancy is ſpent in acquiring habits of ſenſation *.

* This is an obſervation of Dr Reid's, in his ingenious work, entitled, *An Inquiry into the Human Mind.* I agree very much with this author in moſt things, and particularly in the diſtinction he has made betwixt *natural* and *acquired* habits; which he has illuſtrated by examples that I have likewiſe made uſe of: But I do not like the name which he gives to the laſt-mentioned habits, when he calls them *acquired habits of perception*; for, as by the word *perception*, is commonly underſtood perception by the ſenſes, one ſhould imagine the author meant, that theſe acquired habits were truly perceptions of ſenſe. This, however, is not his meaning, though it be the opinion of the vulgar. But I think it is too much complaiſance to vulgar opinion in a philoſopher, to ſpeak vulgar language, when it is apt to miſlead. I have therefore choſen to call ſuch habits *acquired* habits of *judging*, in contradiſtinction to *natural* habits of *ſenſation*, or perception by ſenſe. And by this way of ſpeaking, I mean always to keep in view the diſtinction betwixt *mind* and *body*, and betwixt thoſe operations which the mind performs only *with the aſſiſtance of the body*, and thoſe which it performs *by itſelf*; a diſtinction which I hold to be the foundation of the whole philoſophy of mind, and which I ſhall take occaſion to explain more fully afterwards.

In what I have ſaid above, concerning ſome optical theorems, I have preſumed to differ from the Doctor in a general propoſition, which he lays down, p. 459. That a teleſcope, though it magnifies the viſible figure of the object ten times in diameter, yet makes it ſeem no bigger, but only ten times nearer: For this is true only of known objects that we are accuſtomed to ſee at different diſtan-

I will give one inſtance more of our confounding the natural perceptions of ſenſe with the judgements of the mind: And it is a remarkable inſtance, for this reaſon, that it is the error, not of the vulgar only, as in the caſes above mentioned, but of a philoſopher, I mean Mr Locke. According to his diviſion of ideas, the *idea*, as he calls it, of any particular man, or other animal, is *an idea of ſenſation*, that is, a perception of the ſenſe: Whereas the fact truly is, however paradoxical it may ſeem, that no perſon *ſees*

ces; but it is not true of objects that we are not accuſtomed to ſee in that manner, though they be known. He ſays alſo of a ſingle microſcope what I confeſs I do not underſtand, namely, that it does not magnify the viſible appearance of the object, but only makes it appear at a greater diſtance: And in the very ſame place, he ſays, that the object appears to the eye twelve or fourteen times larger in diameter than it really is. How to reconcile theſe two aſſertions, I do not know. But the fact I take to be, that a microſcope, whether ſingle or double, does magnify the viſible figure for a reaſon which I ſuppoſe is very well known to the Doctor himſelf; at the ſame time it makes the object appear at a greater diſtance than it really is. And this too can be accounted for, if it were here a proper place for ſuch diſcuſſions. I take notice of thoſe things only with an intention that the Doctor may correct ſuch inaccuracies of expreſſion in any after edition he may give of his book; which, upon the whole, I think is a very valuable work.

(that is, perceived by the ſenſe) either man or horſe; for the ſenſe of ſight perceives no more than what is pictured in the bottom of the eye, viz. the figure, colour, and ſize of a certain maſs of matter. But, before the mind can pronounce that maſs to be a *man*, it muſt have performed no leſs than two operations of the intellect; one previous to the perception of ſenſe, the other ſubſequent. The firſt is that by which we form the idea of that ſpecies of animal we call *man*; and whoever ſees a man muſt have that idea ready formed in his mind: By the ſecond, we compare with that idea the object which the ſenſe preſents; and from that compariſon conclude, that the object is *man* or *horſe*, or belonging to any other ſpecies of things. That this laſt operation is truly a *diſcurſus mentis*, and a concluſion of reaſon, as I call it, not a perception of ſenſe, is evident from this, that we often make an erroneous concluſion, and miſtake one thing for another, as when we ſee things at a great diſtance, or through a fog, as in the inſtance above mentioned. In ſuch caſes, every man muſt acknowledge, that there is a judgement of the mind: But, in other inſtances, when there is no error, the proceſs of reaſoning is

ſo very ſhort, and the concluſion ſo inſtantaneous, that a vulgar man may be forgiven to overlook it, and aſcribe all to the ſenſe; but I can hardly have the ſame indulgence for the philoſopher, eſpecially one who pretended, like Mr Locke, to be ſo attentive an obſerver of what paſſed in his own mind, and has written a whole book upon the ſubject *.

*If Mr Locke would have taken the trouble to ſtudy what had been diſcovered in this matter by the antients, and had not reſolved to have the merit of inventing himſelf a whole ſyſtem of philoſophy, he would have known, what I mentioned before, that every material object is compoſed of *matter* and *form*. Of theſe two, the *form* is by far the more excellent, being that which conſtitutes the *eſſence* of every thing, and makes it what it is, in contradiſtinction to every thing elſe. This only is the *idea* of the thing, as we very properly expreſs it in common language; and this is an object of *intellect* alone, which can no more be perceived by the *ſenſe*, than the object of *one* ſenſe can be perceived by *another*; ſo that it is as improper to ſpeak of an *idea* of ſenſation, as it would be to ſpeak of *viſible ſound* or *audible colour*. The *matter*, on the other hand, is only that which excites the ſenſe; by which indeed the mind, in this ſtate of its exiſtence, is rouſed, and, as it were, awakened to the perception of ideas; but of which by itſelf there is no diſtinct idea, knowledge, or comprehenſion, nothing but an obſcure notion; for it is only by the ſpecies that we know even the individual. See *Philoponus in Analytica poſter. lib.* 1. *in fine*. And this is true, not only of *ſubſtances*, ſuch as a man or a horſe, but of *accidents*, (and every thing that exiſts is either *ſubſtance* or *accident*); for, when I ſay, that any ſubſtance is

Having thus conſidered in general the *natural* and *acquired* faculties of man, and ſhewn, that in ſome inſtances they are apt to be confounded, we are now to inquire to which of them the *faculty of ſpeech* belongs; and whether in this, as in other caſes, we may not fall into error, by not diſtinguiſhing ſufficiently what we have by *nature* from what is of *our own* acquiſition. The facility with which we perform the operations in this caſe, as well as in the others above mentioned, is apt to make a man believe, who has not thought much upon the ſubject, that we do it naturally; and that, though it coſt us a good deal of pains and trouble in our infancy to learn the language

white or round, ſweet or ſour, that quality which I aſcribe to it is not a perception of the ſenſe, but the idea of the *general quality*, which I apply to this *particular ſubſtance*. For though this idea ariſe from the perceptions of ſenſe, which furniſhes the materials for it, it is impoſſible it can be the *object* of ſenſe, which perceives only what is *particular*, not what is *general*, as ſhall be ſhewn more clearly afterwards. Till, therefore, the idea of any quality, ſuch as *white* or *round*, be formed by the mind, and become an object of the intellect, the perceptions of the ſenſe, with reſpect to ſuch qualities, have no name or denomination, neither is there any knowledge or comprehenſion of them; ſo that it is impoſſible they can be affirmed or denied of any thing.

that we ſpeak; yet, without that trouble, as ſoon as we came to riper years, we ſhould have ſpoken ſome kind of language, that is, we ſhould have expreſſed the conceptions of our mind by articulate ſounds of one kind or another. On the other hand, I maintain, that this faculty is one of the many acquired faculties belonging to our nature; that though the *capacity* be no doubt given us by nature, the *habit* was very long of being formed. But, as we now perform it with ſo much facility, we overlook the ſteps and the progreſs that were neceſſary to form the habit, as in the inſtances above mentioned, and raſhly conclude *that* to be the work of nature, which is the reſult of long experience and obſervation, and perhaps the greateſt effort of human ſagacity.

The reader, I am perſuaded, will be the more inclined to adopt this hypotheſis, as, from what is ſaid above, it is evident, that even the perception by ſight, which one ſhould think is as much the gift of nature as any thing belonging to us, is truly, for the greater part, the effect of acquired habit, inſomuch that, without ſuch habit, it would be of little or no uſe to us. The ſame, I am perſuaded, may be ſaid of all the reſt of our

ſenſes: And I have no doubt, but that, when we firſt come into the world, we hear, ſmell, touch, and taſte, as imperfectly as we ſee. The reaſon of which I take to be, partly the weakeneſs of the organs of ſenſe, that have not yet acquired the proper tone, and partly the infirmity of the mind itſelf, unaccuſtomed to ſuch impreſſions from external objects, and therefore not knowing what to make of them; and the memory, or retentive faculty, being at that time of life as weak as the ſenſitive, the impreſſions are not retained by it, but are immediately effaced, like traces in water. So that it is highly probable, that by nature merely, and ſetting aſide all uſe and experience, we can hardly be ſaid, at the time of our birth, to have ſenſations, or even to deſerve the name of *animal*. If therefore we have not the uſe of our ſenſes from nature, but from acquired habit, it would be really extraordinary, if the faculty of ſpeech was the gift of nature, and not of our own acquiſition.

CHAP. IV.

That Man does not by Nature form Ideas.— Diviſion of the Conceptions of the Mind.— Nature of Ideas.

BUT, in order to get at the bottom of this queſtion, we muſt return to the diviſion that I have made of language into the *material* and *formal* part, and conſider each of theſe by itſelf; beginning with that which is moſt excellent, namely, the *formal* part. This part, as we have ſhewn, conſiſts principally, and indeed it may be ſaid only, of *ideas*; for, as we have juſt now ſeen, even *individuals* are known only by *ideas*. Now, if I can ſhew, that even the ideas are not from nature, but from acquired habit, there will be an end of the queſtion, though I ſhould not make out that the formation of articulate ſounds is likewiſe by acquired faculty; which, however, I truſt I ſhall be able to do.

To begin then with *ideas*, the nature and origin of which muſt be explained before we can truly judge whether they are the work

of nature, or of habit acquired: The beſt diviſion that I think ever was made of the conceptions of the human mind, is that which *Plato* has given us in the *Theætetus**, into thoſe which the mind forms *with the aſſiſtance of the ſenſes*, and thoſe which it forms *by itſelf* without ſuch aſſiſtance. This diviſion I prefer to all others; becauſe it makes the proper diſtinction betwixt *body* and *mind*, which never ought to be out of the view of a philoſopher who treats of ſuch a compound as man;—a compound that never can be properly analyſed, without making that diſtinction with the greateſt accuracy. Of the firſt kind are the *perceptions of ſenſe*; which undoubtedly are the act of the mind as well as the other; for it is not the *ſenſe* that *perceives*, but the *mind* through the medium of ſenſe†. The other are what I call *ideas*‡: And theſe I ſubdivide into

* P. 135. *Ed. Ficini.*

† Νους ὁρᾳ, νους ἀκουει, is the ſaying of a very antient philoſopher; I think it was Thales; and it is adopted by Ariſtotle.

‡ This word is commonly ſuppoſed, and, if I am not miſtaken, is ſaid by *Diogenes Laertius*, to have been firſt uſed by *Plato*: But the fact is otherwiſe; for it is uſed by *Timæus* the Locrian, in his treatiſe *De Anima Mundi*; and

two kinds; the firſt ſuch as are directly and immediately formed from the perceptions of ſenſe. Of this kind are our ideas of all natural and artificial ſubſtances and their qualities, and in ſhort of every thing without us. The other are ideas which we form from the operations of our own mind. In this way we come by the ideas of *thinking*, *believing*, *doubting*; in ſhort, of every operation of the mind, and of *mind* itſelf. The firſt claſs of ideas is produced from materials furniſhed by the ſenſe; the ſecond ariſes from the operations of the mind upon thoſe materials: For I do not deny, that in this our preſent ſtate of exiſtence, all our ideas, and all our knowledge, are ultimately to be derived from ſenſe and matter. But with theſe, the ideas of the firſt claſs are more nearly connected; whereas thoſe of the o-

it is likely was a word uſed in the Pythagorean ſchool, from which Plato took his doctrine of ideas, as well as moſt other things in his philoſophy, even his doctrine of morals, though that is not commonly believed; and the contrary is ſaid by the ſame *Diogenes Laertius*, in his life of *Plato*, where he tells us, that he took that part of his philoſophy from *Socrates*. But the truth is, that he took nothing from *Socrates* but the *manner* of philoſophiſing, and the art of *dialogue*.

ther kind are more congenial to mind, and may be ſaid to be of *its own growth*, being produced from materials which itſelf furniſhes. They may therefore be called *natural-born* ſubjects of the ſtate, not *naturalized only*, as the others are; but the *ſenſations* are altogether *foreigners* *.

The faculty by which the mind operates in conjunction with the body, is very well known by the name of *ſenſe*; the faculty by which it operates ſingly, and without participation of the body, I call *intellect* †. In the perceptions by ſenſe, the mind is to be

* This is an obſervation of a late author, very little known, *Eugenius Diaconus*, a Greek by nation, and a profeſſor in the Patriarch's univerſity at Conſtantinople; from whence the reader would not expect to hear of any book of ſcience coming at this time of the day. His book is a ſyſtem of *logick*, written in pure Attic Greek, printed at *Leipſwick* 1766. The learned reader, I am perſuaded, will be glad to ſee ſome ſpecimen of this *living* monument of *antient Greece*: I ſhall therefore give his words, which I think are elegant. Speaking of the firſt claſs he had mentioned, viz. the ideas of reflection, he ſays, Οἰκοθεν τε, και ἀνευ της παρα του Σωματος Συνδρομης ἡ ψυχη καρπουται· ἐπι δε της των δευτερων ἰδεοποιιας, (he means what call the firſt claſs of ideas, viz. thoſe formed from external objects), και αἱ παρα των ἐκτος αἰσθητικαι ἀλλοιωσεις το παρ ἑαυτων Συνεισφερουσιν. Ειποι δ' ἀν τις εἰκασας ιθαγενεις ἐκεινας εἰναι τῃ ψυχῃ ἐννοιας, ταυτας δε οἱον πολιτογραφουμενας· αἱ γαρ δια των αἰσθησεων ἀνεπιστατως διεγειρομεναι ἁπλως ἐπηλυδες, p. 159.

† It is called by the Greek philoſophers Νους.

conſidered as merely paſſive, receiving like wax the impreſſions of external objects: But, in the other way of operating, it exerts that active and *ſelf-moving* power, which I hold to be the diſtinguiſhing characteriſtic of mind, and the ſpecific difference betwixt it and body †. When therefore the mind operates in this laſt way, it aſſerts its native power, and acts in a manner more worthy of its divine original; whereas, when it acts in the other way, it is to be conſidered as degraded and debaſed by its neceſſary connection with fleſh and blood. Whether it was always obliged to act ſo, and to receive its ideas from ſenſe and matter, or whether there was not a former period of its exiſtence, when it derived its ideas from a nobler ſource, to the recollection of which ideas it is now only excited, and as it were rouſed, by the impulſe of ſenſe, ſo that all our knowledge is no more than *reminiſcence*, is a ſpeculation not belonging to our preſent ſubject.

† This is the opinion of Plato, who makes the τὸ δυναμενον to be the diſtinguiſhing attribute of mind.

CHAP. V.

Of Mr Locke's Diviſion of Ideas into thoſe of Senſation and Reflection.

AS this diviſion of Mr Locke is that which is commonly received among us, it is proper to conſider how far it differs from, or coincides with, the diviſion I have given. And, in the firſt place, it is obvious, that what Mr Locke calls ideas of ſenſation, comprehends the firſt member of Plato's diviſion, namely, the conceptions which the mind forms by the aſſiſtance of the body, or, in other words, the perceptions of ſenſe. But, further, it likewiſe comprehends the firſt claſs of thoſe conceptions which the mind forms by itſelf, viz. the ideas that ariſe immediately from the perceptions of ſenſe: For, as his diviſion was intended to be general, and to comprehend all the conceptions in the human mind of whatever kind, and as it is evident they are not ideas of *reflection*, it follows of conſequence, that they are what he calls ideas of ſenſation. And further ſtill, as Mr Locke tells us, he means to include in

his diviſion every thing that paſſes in the human mind, I doubt we muſt claſs under the firſt member of it the inward feelings of pleaſure and pain, as well as the perceptions of external objects; and, in common language, ſuch feelings are called by the name of *ſenſations*. As to thoſe ideas which he calls, not improperly, *ideas of reflection*, being produced by a reflex act of the mind upon itſelf, they coincide perfectly with what I call the ſecond claſs of ideas, viz. thoſe formed by the mind from its own operations.

But what apology can the admirers of Mr Locke make for his not only giving the ſame general name of *ideas* to things of ſo different a nature as the perceptions of ſenſe, and the ideas from thence formed, but making them to be of the ſame ſpecies of ideas? Is it not plainly confounding the materials with what is made out of thoſe materials, as if we ſhould expreſs by one word the braſs, and the ſtatue that is made of it? Does not ſuch a confuſion of *language* naturally lead to confuſion of *thought*? Will a man who has only learned the philoſophy of Mr Locke, readily make the diſtinction that

Plato has made, betwixt the conceptions of the mind produced by the aſſiſtance of the body, and thoſe which it forms by itſelf without the intervention of the body? And will he not, on the contrary, be diſpoſed to believe, that the mind is entirely dependent upon the body, and that it cannot act at all without impulſes from the body? What conſequences this opinion leads to, I ſhall afterwards conſider; but, in the mean time, I muſt obſerve, that I cannot carry my cenſure of Mr Locke ſo far as a late ingenious author, whom I mentioned before, Dr Reid, does; who, in the concluſion of his work, charges Mr Locke's diviſion of ideas with the greateſt fault that any diviſion can have: For his accuſation comes to this, that it is no diviſion at all; becauſe, ſays he, ideas of reflection comprehend ideas of ſenſation; for it is only by reflecting upon what paſſes in our own mind that we come by the idea of ſenſation, as well as of doubting or believing; where it is manifeſt the Doctor confounds the abſtract idea of ſenſation with the idea of the external object which that ſenſation preſents to the mind. The firſt is moſt certainly an idea of reflection, being produced by the mind's reflecting upon

what paſſes within itſelf; but the laſt is as certainly, in the language of Mr Locke, an idea of ſenſation. If it be true what the Doctor adds, that a certain later writer, whom he mentions, has made this hypotheſis the foundation of his ſyſtem of ſcepticiſm, it is not the Doctor only that has fallen into this error. And I muſt own, Mr Locke has talked ſo confuſedly upon the ſubject, and has been at ſo little pains to explain this grand diviſion of his, upon which he has built his whole ſyſtem, that I do not much wonder that Dr Reid and others have fallen into this error. For, as Mr Locke has expreſſed himſelf, it may be doubted, whether, by ideas of ſenſation, he means all, or only one or other, of the following things: 1*ſt*, Perceptions of particular objects of ſenſe; 2*dly*, Ideas, or, as they are commonly called, abſtract ideas of thoſe objects; 3*dly*, Abſtract ideas of the perceptions or ſenſations themſelves, ſuch as we form of the ſenſation of ſeeing or hearing; 4*thly*, Particular ſenſations of pleaſure or pain; and, *laſtly*, Abſtract ideas of thoſe ſenſations. The not diſtinguiſhing betwixt ſuch different ſignifications of the ſame term, has thrown a very great obſcurity over his whole work,

though I know it is admired by many as a perfect pattern of perſpicuity.

It may be ſaid, in defence of Mr Locke, though I do not know it has been ſaid, that his diviſion of ideas does not reſpect their nature, or what they are, ſimply conſidered in themſelves, but only their ſource or origin: So that his meaning is no more, than that all our ideas are either from ſenſation or reflection. But, in the *firſt* place, this is not a meaning to be gathered from his words, but rather the contrary; for he every where ſpeaks of ideas of ſenſation as the *immediate* perceptions of ſenſe, not derived from it only; though he ought not to have left it even ambiguous in what reſpect this diviſion was which he has made the foundation of his whole ſyſtem. And, *ſecondly*, If this was his meaning, there ſhould have been no diviſion at firſt, but he ſhould have laid it down ſimply, that all ideas are from ſenſe; and then he ſhould have diſtinguiſhed betwixt thoſe that were directly and immediately from the ſenſe, and thoſe that were mediately by the intervention of the reflex act of the mind upon its own operations. If he had done this, he would not only have proceeded methodically and diſtinctly, but I

think it is highly probable, he would have avoided the capital error which he has fallen into, of confounding the perceptions of ſenſe, which are the ſource of our ideas, with the ideas themſelves *.

* Mr Locke wrote at a time when the old philoſophy, I mean the ſcholaſtic philoſophy, was generally run down and deſpiſed, but no other come in its place. In that ſituation, being naturally an acute man, and not a bad writer, it was no wonder that his eſſay met with great applauſe, and was thought to contain wonderful diſcoveries. And I muſt allow, that I think it was difficult for any man, without the aſſiſtance of books, or of the converſation of men more learned than himſelf, to go farther in the philoſophy of mind than he has done. But now that Mr *Harris* has opened to us the treaſures of Greek philoſophy, to conſider Mr Locke ſtill as a ſtandard-book of philoſophy, would be, to uſe an antient compariſon, continuing to feed on *acorns* after corn was diſcovered. I believe there have been many, ſince the reſtoration of letters, that underſtood Greek as well, ſome few perhaps better, than Mr *Harris*: But this praiſe I may give to my friend, without ſuſpicion of partiality, that he has applied his knowledge in that language more to the ſtudy of the Greek philoſophy, than any man that has lived ſince that period. It was the misfortune of us in the weſtern parts of Europe, that, after we had learned Greek from the Greeks that took ſhelter in Italy, upon the taking of Conſtantinople, and had got ſome taſte of the Greek philoſophy, enough to know, that what was taught in the ſchools was a baſtard kind of it, we immediately ſet up as maſters ourſelves, and would needs be inventors in philoſophy, inſtead of humble ſcholars of the antient maſters.

CHAP. VI.

Of the Formation of Ideas.

THE nature of ideas cannot be underſtood, without knowing accurately the manner in which they are formed; and from the account I am to give of their for-

In this way *Des Cartes* philoſophiſed in France, Mr *Hobbs* and Mr *Locke* in England, and many ſince their time of leſs note. I would fain hope, if the indolence and diſſipation that prevail ſo generally in this age would allow me to think ſo well of it, that Mr *Harris* would put a ſtop to this method of philoſophiſing without the aſſiſtance of the antients, and revive the genuine Greek philoſophy among us. For this purpoſe, he has taken uncommon pains, leading us, as it were, by the hand to the ſources, and even taking the trouble to give moſt accurate, as well as elegant tranſlations, of the paſſages he quotes, for the ſake of thoſe that are not ſufficiently maſters of the Greek language. He has, beſides, diſcovered, to me at leaſt, a new ſet of writers upon philoſophy, of whom I was before entirely ignorant; I mean the later commentators upon *Ariſtotle* of the Alexandrian ſchool; without whoſe aſſiſtance, the *Eſoteric* works of Ariſtotle, that is, the more abſtruſe parts of his philoſophy, appear to me altogether unintelligible: For it is certain, that Ariſtotle did not compoſe thoſe works with the deſign that they ſhould be underſtood by the vulgar, or by any body that had not been taught by him, as he himſelf ſays in his famous letter to his pupil Alexander, upon occaſion of his publiſh-

mation, I hope it will be evident, that they are, as I have ſaid, the production of *mind*, genuine and pure, without any mixture of *body*, and its operations. In this way the *origin* of our ideas will appear; without the knowledge of which, it is impoſſible to give

ing his books of metaphyſics; which he there ſays he had *publiſhed* and *not publiſhed*. In ſhort, his philoſophical writings are, for the greateſt part, to be conſidered as no more than a text-book, to be explained and enlarged by his lectures. See *Simplicius* in the beginning of his commentary upon the *Predicaments*. Beſides, theſe commentators, particularly *Simplicius*, whom I juſt now quoted, have preſerved to us many valuable paſſages from antient books of philoſophy which are now loſt; for they had the uſe of many more books of that kind than we have. And further, it appears to me, that there was a *traditional* knowledge of *Ariſtotle's* philoſophy preſerved in this ſchool of Alexandria, which, in the ſecond century of the Chriſtian æra, came to be, what Athens was before, the ſeat of philoſophy and learning of all kinds. Of ſome of thoſe commentators that have not been printed, Mr Harris has been ſo lucky as to procure MS. copies: But there are many more of them to be found in the *Eſcurial* library in Spain, that have not yet been printed, and I doubt never will, unleſs the love of Greek philoſophy prevail more in Europe than it is likely to do. And indeed my ſurpriſe is, that ſo many of them have been publiſhed; for which I can account no otherwiſe, but that there was a paſſion for Greek learning and philoſophy ſoon after the reſtoration of letters, (for about that time they were all printed), which I doubt is not now to be found, except among a very few.

any philoſophical account, ſuch as we propoſe to give, of the *origin* of language. After we have done this, we hope it will not be difficult to ſolve the queſtion now in hand, and to ſhew, that *ideas*, being the workmanſhip of mind, are not a *natural* production, but that there is a progreſs here, as in other things belonging to mind, from *capacity* to *habit*; and that the faculty of forming ideas is, like other faculties of the mind, *acquired* by uſe and exerciſe.

Much has been ſaid, and excellently well ſaid, by Mr Harris * upon this ſubject of the formation of ideas. I do not differ from him materially in any thing he has ſaid on the ſubject; but as the nature and deſign of my work requires that ſome things relating to ideas ſhould be more fully, and a little differently explained, I hope I ſhall be excuſed by the public, as I am ſure I ſhall be by Mr Harris, for coming over again a ſubject that has been already ſo well handled by ſo eminent an author.

I will begin with my firſt claſs of ideas, thoſe which ariſe immediately and directly from the perceptions of ſenſe. If we account well for the origin of them, the for-

* *Hermes, lib.* 3. *cap.* 4.

mation of thoſe of the other claſs, ariſing from the mind's own operations, will be eaſily explained.

The materials of the ideas which we form from the perceptions of ſenſe, are all furniſhed by *ſenſation*; with which therefore we muſt begin in our account of thoſe ideas. A certain impulſe made by external objects upon the body, or certain parts of the body, known by the name of the *organs of ſenſe*, if propagated to the mind, (for that does not always happen,) by a conveyance which we cannot explain, produces what we call a *ſenſation*, or perception of the ſenſe; which is different according to the difference of the ſenſes; but they all agree in the deſcription I have now given. To analyſe or deſcribe more particularly this operation of external objects upon the mind, is not neceſſary for the purpoſe of this work; and beſides, it is done to my hand in the ingenious work I quoted before, I mean Dr Reid's treatiſe upon the Human Mind.

According to this account of ſenſation, it is by its nature fleeting and tranſitory; and, if there were no way of preſerving thoſe impreſſions upon the mind, ſo that they ſhould vaniſh and diſappear like traces in water,

there would be no comprehenſion or knowledge of any kind: But nature has contrived a way of giving a permanency and ſtability to thoſe fleeting *impreſſions*, by the means of what we call *memory*; in which the perceptions of ſenſe are fixed in ſuch a manner as to become the objects of knowledge.

If we could ſuppoſe but one object of ſenſe thus recorded in the memory, there could be no idea, nor any kind of knowledge, ſuch as we have at preſent: For, as was ſaid above, it is by the kind or ſpecies that in this ſtate of our exiſtence we know any thing*. Now, to what ſpecies or claſs of things could this ſingle perception be referred?

* It may be objected, How then can we form an idea of any new ſpecies, or of a ſingle or monadic thing, as the antient philoſophers call it, ſuch as the *ſun*? I anſwer, with reſpect to the new ſpecies, by applying to it general ideas that I had already formed. I ſee, for example, an animal or vegetable that I never ſaw before; the only way I can form any notion of it is, by applying to it the ideas I have already formed of a certain figure, colour, ſize, or whatever other quality. In the ſame manner, I form a notion of any thing which by nature is ſingle, ſuch as the *ſun*; and the new animal or vegetable, till I ſee more of the ſpecies, is, with reſpect to me, a monadic thing. It is therefore ſtill true, that we know things only by the idea we have of the ſpecies, either of the ſpecies to which the thing belongs, or of ſome other ſpecies.

Next, let us ſuppoſe the moſt ſimple caſe, that the ſame object preſents itſelf again to the ſenſe; then will the trace of the former perception be renewed; or, to ſpeak without a metaphor, we ſhall have another perception of the ſame object, knowing it to be the ſame. And here for the firſt time the mind begins to act by itſelf, and to exert a little of its intellectual powers: For it is clear, that this knowledge of the identity of the object goes beyond the power of ſenſe; which can do no more than give another perception of the object, but cannot, by comparing the object with itſelf, determine that it is the ſame.

And thus far the brute goes alongſt with us: For he has ſenſe and memory as well as we, and, like us, he can diſtinguiſh the ſame from a different object; for who will deny that a dog knows his maſter, or a horſe his keeper?

The next caſe we ſhall ſuppoſe is, that not the ſame individual object, but one of the ſame ſpecies, preſents itſelf to the ſenſe: I ſay, the mind there, too, exerts its intellectual faculty, and diſcovers that there is a likeneſs betwixt the two, though they are not the ſame.

Hitherto likewiſe, but no farther, the brutes accompany us: For it is manifeſt, that theſe animals have ſome notion of likeneſs as well as of ſameneſs; for a dog will diſtinguiſh a man, or any other animal, from one of his own ſpecies; and when a creature of an uncommon ſpecies, that he never ſaw before, is preſented to him, we ſee manifeſt tokens of ſurpriſe in him.

The next ſtep, one ſhould imagine, after diſtinguiſhing the ſpecies in the individual, was to form the idea of the ſpecies, and ſo to perceive *the one in the many*, as Plato has expreſſed it. But, before we come ſo far, there is another ſtep neceſſary, though I think it has not been obſerved; for, before we can ſee *the one* in *the many*, we muſt ſee the *one* by itſelf. For underſtanding this, it is neceſſary to obſerve, that our ſenſes preſent to us the objects as they exiſt in nature, that is, mixed and compounded; for, in that way, every thing in the material world appears to the ſenſe; So that, in perceiving even a ſingle object, the ſenſe perceives only ſo many different qualities united in ſome *matter* or *ſubſtratum*, of which the ſenſe has no perception. Thus, when we perceive a man, or any other animal, the ſenſe takes

in at the ſame time the figure, the colour, the ſize, and other ſenſible qualities; and the combination of theſe qualities in one common ſubject, is the firſt rude notion, and, as it were, confuſed ſketch, which not only we, but alſo the brutes, as I have obſerved, have of the ſpecies. But, in order to form the *idea*, a *ſeparation* or *diſcrimination* is neceſſary of theſe qualities one from another: And this kind of *abſtraction* I hold to be the firſt act of human intellect, and that it is here the road parts betwixt us and the brute; for the brute perceives the thing, and preſerves the perception in his memory, juſt as the object is preſented by nature, that is, with all its ſeveral ſenſible qualities united; whereas the human intellect ſeparates and diſcriminates, and conſiders by itſelf, the colour, *e. g.* without the figure, and the ſize without either *.

* By what is here ſaid, I would not be underſtood to deny the truth of Ariſtotle's maxim, that Νους ποιει το εν πασιν, i. e. it is *mind* that makes *one*: For though *ſeparation* be the firſt operation of the human intellect, *uniting* is the *principal*, and *that* for the ſake of which the other is performed; for it is by *uniting*, or making *one* of the *many*, that *ideas* are formed. By the union of ideas we make propoſitions; by the union of propoſitions, ſyllogiſms; and by the union of ſyllogiſms, ſyſtems of ſcience. Plato has conſidered them both as equally the operation of

The next ſtep after this, is undoubtedly *the idea*, or *the general:* For, perceiving that this *one*, which by our *intellectual* faculty we have ſeparated from the *natural* maſs, exiſts, not only in the individual object from which we have abſtracted it, but in many others; then, and not till then, we have the *idea* of a *quality* or property of any ſubſtance; and as ſoon as we perceive a certain combination of them united together in one common ſubject, then we have the idea of a *ſubſtance*; for the intellect firſt *ſeparates*, and then *unites*. Nor indeed can we conceive ſeveral things *united*, without firſt conceiving them *ſeparated*; for, as to the joint perception of ſeveral

mind; for, ſays he, the mind makes *one* of *the many*; and again, *many* of *the one*; that is to ſay, it forms the *idea* of the *genus*, and then we divide it into the ſeveral ſubaltern ſpecies. And there is nothing in ſcience that he recommends more, than never to quit the *general*, or let things go to *infinity*, as he expreſſes it; that is to ſay, to *individuals*, till we are ſure that we have exhauſted all the ſpecific differences. See the *Philebus*. And accordingly he has himſelf practiſed this method of *diviſion*, as it is called, very much, particularly in the *Sophiſta* and *Politicus*. But ſtill I think it is true, that *union* is the principal operation of mind; for it is in order to make new ſpecies, or new *ones*, if I may ſo ſpeak, that we divide the genus, in the ſame manner as at firſt we abſtract from any object of ſenſe any of its qualities, in order to form the idea of the ſpecies.

things preſented to us by the ſenſe, it is plainly the operation of the ſenſe alone, and has nothing to do with intellect; and accordingly the brute perceives in that way as well as we.

And thus it appears, that by the mind's abſtracting from any individual one or more ſenſible qualities, and perceiving theſe to exiſt in other individuals, the *idea* is formed, and the *one* is made out of the *many*. And what makes this one, is *that one thing* which is *common* to the *many*; for *that* gives them an union, and, as it were, a band or tie, which bundles them up together. When the idea is perfectly formed, the ſeveral *ſubjects* in which this one common thing exiſts, are entirely laid out of the view of the mind, and the *one common thing* is only conſidered; that is to ſay, in other words, *the likeneſs*, or, to ſpeak more accurately, *that in which they are like*, is only conſidered, not the *things* that *are* like; the *commonneſs*, if I may ſo ſpeak, that is, *the thing which is in common*, not the *things* which *have* it in common *

* It is in this ſenſe that *Simplicius*, in his commentary upon the *Categories*, uſes the word κοινόν. See the paſſage quoted by Mr *Harris* in his *Hermes*, p. 381. And

The proceſs I have deſcribed above, will be eaſily underſtood when explained by an example. I have the perception by my ſenſes of an individual animal, as *e. g. a man*; and this perception conſiſts of the perceptions of ſeveral particular qualities, ſuch as figure, colour, ſize, &c.; which being all perceived by the ſenſe as united together in *one ſubject*, make up the *general perception*, ſo I may call it, of a man.

But this union is entirely the operation of ſenſe, not of mind; for the mind does no more than receive the united impreſſion from ſenſe. And accordingly the brute has this perception as well as we. And further, when this united impreſſion is again made upon the ſenſe, he knows it to be the ſame. So far there is neither *abſtraction* nor *generalization*. But, if I ſhall go further, and conſider in the individual man, either preſented

it may be obſerved, that it is from this κοινότης that the more general idea is ſaid to comprehend or contain the leſs general; and the leſs general to be a part of the more general; for the κοινότης or *common nature*, is ſaid to *contain* every thing that participates of it; and, on the other hand, what participates, is ſaid to be a part of the *common nature*. This is the more to be attended to, that upon this notion of *one idea* being *part* of another, depends the whole doctrine of the *ſyllogiſm*, as laid down by *Ariſtotle* in his *Firſt Analytics*.

to me by the ſenſe, or preſerved in my memory, any one particular quality, ſuch as the figure, ſeparated from the reſt, then I perform that operation of intellect which I call *abſtraction*. Again, if I go farther ſtill, and comparing together the ſeveral perceptions preſented to the ſenſe, or retained in the memory, of individuals of the ſame ſpecies, I find that this figure is common to them all; then, and not till then, I have the general idea of this figure, which, either by itſelf, or joined with other qualities abſtracted in the ſame manner, (according as my idea is more or leſs complete), forms the idea of *man*; which is plainly made up of one or more qualities, firſt abſtracted from *one* individual, and then recogniſed as common to *many*.

From this account of ideas it appears, that we often do not ſufficiently diſtinguiſh the idea of a thing from that confuſed perception of it above mentioned, ariſing from the united impreſſion which its ſeveral qualities make upon the ſenſes. This perception, as I have ſaid, we have in common with the brutes; and the ideas of vulgar men are very little better. And the ideas even of men of ſcience, in things that they have not ſtudied, are of the ſame kind.

For, if ſuch a man, though learned in other ſciences, has not ſtudied botany, for example, or obſerved, with particular attention, the characteriſtical differences of plants, he may be able readily to diſtinguiſh thoſe with which he is acquainted, one from another, in the ſame manner as a dog can diſtinguiſh a horſe from a man; but he will not be able to give any rational account of the difference, and, conſequently, will not have what may be properly called the *idea* of the thing. And, if we attend, we ſhall find that we have ſuch notions of many things in common life. For example, every man can readily diſtinguiſh the faces of the ſeveral perſons with whom he is acquainted; but it would coſt him a good deal of time and thought before he could tell wherein the difference conſiſted. He has therefore no more than a confuſed notion of thoſe faces: But this is ſufficient for the ordinary purpoſes of life.

Another diſtinction is neceſſary to be made, if we would think accurately upon this ſubject. Suppoſe that I have abſtracted and formed diſtinct ideas of every quality exiſting in any ſubſtance; ſuppoſe alſo, that I perceive the combination of theſe qualities

in that ſubſtance; I cannot for this be ſaid, properly ſpeaking, to have the idea of that ſubſtance: I have indeed a diſtinct perception of it; but, till I recogniſe the ſame combination of qualities exiſting in ſome other ſubject, I do not perceive the *general*, and, conſequently, have no *idea*, but only an individual perception.

For underſtanding this, let us ſuppoſe a ſingle or *monadic* thing, ſuch as I mentioned before, and ſuch as the antients conceived the ſun to be. Of this ſubſtance, I have a diſtinct notion, becauſe I perceive and diſtinguiſh certain qualities in it, of which I have the idea, ſuch as light, and heat, and emiſſion of rays; but, if I do not conceive that there is any other ſun in the univerſe, I have no idea of it, nor is it a ſpecies of any thing, but a thing by itſelf. In like manner, if I ſee any new ſpecies of plant or animal, tho' I can deſcribe it exactly, if I am an attentive obſerver, and a good natural philoſopher, by aſcribing to it ſuch qualities as are known; yet, till I diſcover other plants or animals of the ſame kind, it cannot be ſaid to conſtitute a ſpecies, nor can I be ſaid actually to have an idea of it, though I may reaſonably ſuppoſe it to be one of a ſpecies, as there is,

no doubt, the higheſt probability that there is not in nature any ſingle vegetable or animal. But this is only ſuppoſition, and, till more of the kind is diſcovered, it is, ſo far as we know, but ſingle; and ſo can never make a ſpecies. But, as ſoon as we diſcover others of the kind, and ſo can generalize; then we conceive the ſpecies, and have the idea of the thing.

This, therefore, is the proceſs of the mind in the formation of ideas. We begin with qualities, and by firſt abſtracting, and then generalizing them, we get the ideas of qualities. Next, by combining qualities in certain ſubjects, and generaliſing thoſe combinations, we attain to the ideas of ſubſtances. And thus it appears that we muſt proceed with reſpect to intellectual, in the ſame manner as we do in natural things. For, if I would be a good natural philoſopher, I muſt accurately obſerve the ſeveral ſteps of Nature's progreſs in the formation of any plant or animal, from the ſeed or embryo to the perfect thing of the kind. In like manner, if I would underſtand the things belonging to mind, I muſt trace their progreſs ſtep by

ſtep, carefully attending that I do not overleap any. And it is only in this way that we can attain to any competent knowledge of the philoſophy of mind.

In this proceſs, the laſt and principal ſtep, being that which compleats the idea, is *generaliſation*, by which we perceive what is general or common to one or more things. For it is the perception of this common nature, as diſtinct from the ſubjects in which it is inherent, that makes what I call an *idea*. Now, when we *generaliſe*, we neceſſarily *compare*. So that the faculty of compariſon is that which produces ideas, and is therefore the foundation of intellect, and all the intellectual powers of the human mind *.

* By comparing things together, we diſcover their differences as well as their likeneſſes. And hence we may perceive, that Ariſtotle's notion of *definition* was founded on a perfect knowledge of the human underſtanding, and the manner in which it acquires knowledge. For, according to him, the definition muſt contain both the genus and the ſpecific difference; that is to ſay, what the thing defined has in common with other things, and what diſtinguiſhes it from other things. So that, without ſimilitude and difference, there could not, according to Ariſtotle, be any knowledge of any thing. And it is to be obſerved, that it is not every difference which muſt be expreſſed in the definition; for

We are not, however, to imagine, that the brute wants it entirely; for a dog certainly *compares*, when he finds out that a man is or is not his maſter, or when he deliberates which of two ways he ſhall go. For deliberation neceſſarily implies compa-

the differences of things are innumerable; becauſe every thing is different from that which it is not. But it is the difference from things of the ſame kind, and which makes the thing defined a ſpecies by itſelf; whence it is called the *ſpecific* difference. And the reaſon is, that the thing cannot be perfectly known, which it ought to be by the definition, unleſs we can diſtinguiſh it from thoſe things that it moſt reſembles. For, if I can only diſtinguiſh any particular ſpecies of animal from a ſtone, or even a plant, I know little or nothing of its nature: But, if I can diſtinguiſh it from other animals, I may be ſaid to know it; and then beſt, when I can diſtinguiſh from it thoſe which it reſembles moſt.

If this be a true account of the nature of our ideas, we have no knowledge but of the relations which things have to one another. And it will be objected, that things, particularly that claſs of them we call ſubſtances, have a nature and eſſence of their own, by which they are what they are, without relation to any thing elſe. And therefore, according to my account, we can have no knowledge of the nature of ſuch beings. To this I anſwer, that human knowledge does not reach to the eſſence of any ſubſtance. All we know of them is certain properties or qualities; and theſe are nothing elſe but relations to other things. To be convinced of this, we need only try to form an idea of any plant or animal, without

riſon. But the difference appears to me to conſiſt in theſe two things: 1*ſt*, That the brute, not having made the diſcrimination above mentioned of the ſeveral particulars, does not make the compariſon ſo exactly, but only compares things together by the

referring it to ſomething elſe. It may indeed be perceived by our ſenſes, or it may be figured by our imagination; but we ſhall try in vain to make it an object of the underſtanding, without conceiving it to be like ſomething elſe, or different from ſome other thing. And the ſame is true with reſpect to the qualities or accidents of ſubſtance, of which we have no idea, but in ſo far as they have ſomething in common, or ſomething different from other accidents. Now, ſubſtance and accident comprehend the whole of things.

If it be aſked, from whence we get this knowledge of likeneſs and difference, which, I ſay, is all we know of the nature things? I anſwer, from the ſource of all our knowledge in our preſent ſtate of exiſtence, I mean the ſenſes: And, particularly with reſpect to material objects, we have that knowledge of them directly and immediately from the ſenſes. For we know nothing of their likeneſs or difference, except from their operations upon our organs of ſenſe. Thoſe which operate upon our organs in the ſame way, we ſay, are of the ſame kind; thoſe which operate in a different way, of a different kind. As to mind, and its operations, we know nothing of it, but from the conſciouſneſs of the operations of our own mind. Thoſe of them, which in that way that we know to be alike, we refer to the ſame claſs, and call, *doubting*, *believing*, *deſiring*, &c.; and from them

lump. 2*dly*, The brutes make the compariſon only when the ſenſe is excited by the preſence of the object, with which they compare another perception of ſenſe preſerved in the memory. Thus a dog, when he knows his maſter, compares the immediate perception which he has of him with the paſt, which he retains in his memory or imagination*. And I am perſuaded, that, in our very early years, we compare in no other way: But, in proceſs of time, we attain the faculty of comparing together the perceptions of ſenſe, even when the objects are not preſent; and from that compariſon, forming notions of their likeneſs or unlikeneſs.

we diſtinguiſh other operations, which by the ſame means we know to be different.

Thus it appears that all our ideas, and whatever can be called knowledge, ariſe from experience and obſervation, either of external objects, or of what paſſes in our own mind. So that ἐμπειρία, *experience*, is not only the mother of all arts, as Ariſtotle informs us, but alſo of our ideas, which are, like art, nothing elſe but a collection of many experiences. And as art is clearly not from nature, but the fruit of human induſtry; ſo neither are ideas, which come from the ſame ſource, as ſhall be more fully ſhewn in the ſequel.

* The difference betwixt theſe two I will afterwards explain; but I did not think it proper to imbarraſs the preſent argument with ſuch a diſcuſſion.

Of the generals thus formed by compariſon, logicians diſtinguiſh *two* ſets or claſſes. The *firſt* conſiſts of thoſe of the *loweſt ſpecies;* ſo called, becauſe below them there is nothing but *individuals.* Theſe being formed in the manner above deſcribed, and recorded in the memory, as the perceptions of ſenſe were before, the mind again exerts its power of compariſon upon them; and diſcovering among them likewiſe reſemblances, forms of thoſe reſemblances another ſet of generals above the firſt; with reſpect to which they are, in the language of logic, ſaid to be the *genus.* And thus we ariſe from *general* to *general,* till we come up to thoſe of the *higheſt order,* which are diſtinguiſhed from thoſe of inferior order by the name of *univerſals.* Theſe, in the antient philoſophy, have, by an amazing exertion of the human genius, been reduced to ten claſſes, and called by the name of *categories;* ſuch as *ſubſtance, quality, quantity,* &c. *. And here we may obſerve in paſ-

* This diſcovery was firſt made in the *Pythagorean ſchool,* (if it was not brought by Pythagoras from Egypt); and is to be found in the work of *Archytas,* a philoſopher of that ſchool; which has been preſerved to us by *Simplicius,*

ſing, the very great impropriety of Mr Locke's philoſophical language; for theſe *univerſals*, or whatever we can ſuppoſe farther removed from *ſenſe and matter*, muſt all be ranked under his *ideas of ſenſation*.

the commentator upon *Ariſtotle*, who has inſerted the whole, or by far the greateſt part of it, in his commentary upon *Ariſtotle's Categories*. The title of the work, as Simplicius tells us was, Περὶ τοῦ παντὸς, that is, *Of the univerſe*: For, it appears, he conſidered theſe univerſals as the principles of all things; which, no doubt, they are. Ariſtotle has entitled his work, upon the ſame ſubject, Κατηγορίαι, *Categories*, or *Predicaments*, as we commonly tranſlate the word from the Latin: And the reaſon of the difference of the title is, that Ariſtotle, in his work, has conſidered thoſe univerſals *logically*, as the *predicates of propoſitions*; and accordingly has ſet this book at the head of his logic: Whereas, Archytas has treated of them *metaphyſically*, as the *principles of things*. Simplicius tells us, that Ariſtotle, in his work, has followed Archytas very cloſely, differing from him in very few things: And indeed it ſo appears from the paſſages he quotes; which clearly ſhew, that the *Categories* of Archytas are the very ſame in *name*, in *number*, and in *nature*, with thoſe of Ariſtotle; and there is only ſome difference in the way of arranging them: But, as to the method of explaining and illuſtrating them, it is ſo very like, that it is plain Ariſtotle muſt have had before him Archytas's book; of which, in ſome places, he has copied the words, only tranſlating them from the *Doric* of the original into the *Attic*. And yet I am ſorry to ſay, that neither in that work,

From this account of the human mind, and its progreſs, compared with that of the brutes, it appears, that the eſſential difference betwixt them and us conſiſts in this, that the brute ſtill continues as much im-

nor in any other, ſo far as I know, has he ever made mention of an author, to whom he owed a diſcovery ſo great, and of which he has made ſo much uſe. It is indeed true, what Porphyry ſays in his *life of Pythagoras*, § 53. That Plato, Ariſtotle, and other Greek philoſophers, whom he names, have taken almoſt their whole philoſophy from the Pythagoreans. But there is no other of them, ſo far as I know, that has tranſcribed a whole book of that philoſophy, without acknowledging to whom he owed it.

As to the utility of the diſcovery, it is ſuch, that without it we ſhould have had no perfect ſcience: For there can be no ſcience without definition; and there can be no definition, unleſs we can tell the genus or claſs to which the thing defined belongs; and the definition is not complete, unleſs we can tell, not only the *immediate* genus, but the *higheſt* genus, that is, the *laſt claſs* under which the thing is comprehended. Thus, though I know that *man* is an animal, if I do not know what *animal* is, I cannot be ſaid to know what *man* is. But, further, ſuppoſe I know that *animal* belongs to the genus of the το εμψυχον, or *animated body*, in order to make the definition complete, I muſt know likewiſe to what genus or claſs of things the το εμψυχον belongs. But is there no ſtopping in this aſcent? or is there an infinite progreſs upwards? If there

merſed in matter as we are in the firſt ſtage of life: So that his mind never acts but by impulſe from material objects, either external or internal; by which laſt I mean the natural calls of appetite, produced by certain alterations of the body: Whereas, our mind acquires the habit of acting by

be, it is clear there can be no complete definition, and, conſequently, no perfect ſcience; becauſe there is no ſcience of what is infinite. Again, ſuppoſe there was a limit to this aſcent, and that we could determine the *ultimate* genus, beyond which there is no other, that is the *category*, which, in the inſtance I have given, is *ſubſtance*; yet, if we could not define the number of thoſe univerſals, there would, for the ſame reaſon, be no ſcience of the principles of things, which, as I have ſaid, the categories are; and all we could ſay of them would be, that they were infinite. And thus it appears, that, without the knowledge of the categories, there would be no ſuch ſcience as *metaphyſics*, which is the ſcience of the principles of things, nor any perfect ſcience of any kind. I ſay, *perfect ſcience*; for there may be ſcience without ſuch complete definitions as I have ſuppoſed. Thus, Euclid has not told us *what* a point is; that is to ſay, what genus it belongs to; but has only ſaid, that *it is that which has no parts*. *Figure*, he has defined, in the ſame way, by telling us, *It is that which is incloſed by one or more boundaries*. *Length*, *breadth*, and *thickneſs*, he has not at all defined, though he has made uſe of the terms in the definitions of *lines*, *ſurfaces*, and *ſolids*, but has referred to *ſenſe* and common apprehenſion for the knowledge of them. And, though he has made *magnitude* and

itſelf, without any ſuch impulſe from matter, and ſo of exerting that *ſelf-moving power*, which, as I obſerved before, is the chief characteriſtic of *mind*, and which is denied to the brutes, at leaſt in the ſtate in which we ſee them.

number the ſubjects of two ſciences, viz. *geometry* and *arithmetic*, he has ſaid nothing of the *category* to which they both belong, viz. *quantity*. It is for this reaſon that Plato has ſaid, that *geometry*, and, in general, what we call *mathematics*, are not *perfect ſciences*; becauſe they do not demonſtrate or explain their principles. See *Plato De Repubi. lib.* 6. But Ariſtotle has made an apology for Euclid, and all thoſe that have treated of the *inferior ſciences*, by ſhewing, that it belongs only to the *firſt philoſophy*, or the *ſcience of ſciences*, as it may be called, to demonſtrate the principles of the *ſubaltern ſciences*, which *aſſume* their principles, but do not demonſtrate them. And therefore Euclid would have been to blame, becauſe he would have gone out of the bounds of his ſcience, if he had meddled with *ſpace*, *extenſion*, *quantity*, or any ſuch univerſals.

Thus it appears of what univerſal uſe, not only in *logic*, but in the *whole* of philoſophy, the doctrine of the *Categories* is; of which I could not help taking notice in paſſing, though it has run out into a long note. I ſhall only add, that the public will very ſoon ſee a work of Mr *Harris*, in which the nature of the ſeveral *categories* will be accurately explained; and which, if I am not much miſtaken, will be the beſt book of *metaphyſics* in the Engliſh language; for, in that way, he has choſen to treat the ſubject.

This obſervation will explain ſeveral phaenomena of the brute nature; from which ſome have raſhly concluded, that they have the uſe of intellect and reaſon as well as we. Thus, a horſe, by travelling the ſame road twice or thrice, learns to know it often better than his rider; from whence one might conclude, that he had ſome idea of a road. But the fact truly is, that although, no doubt, the perception of this particular road is impreſſed on his memory or imagination, and retained there, yet he has no *idea* of a road; becauſe, not having that active ſelf-moving power above-mentioned, his remembrance is only excited by the object being preſented again to his ſenſe. At any other time, ſo far as we can diſcover, he never thinks of that road, nor is conſcious that he has any ſuch perception in his memory: And therefore it is impoſſible that ever he can form the *idea* of a road, according to the proceſs above deſcribed. Again, a horſe or a dog remembers his home, or the place where he is fed, and protected from the weather; but, ſo far as we know, never thinks of that place, except when he is prompted by hunger, cold, love of ſociety, or any other natu-

ral appetite. And it is the ſame with reſpect to the operations of the mind of the brute, as with reſpect to his perceptions of external objects: For not having that ſelf-moving power which we have, he cannot review his own operations, of which he is not conſcious; and therefore it is evident that he cannot form *ideas of reflection.*

From what is here ſaid, the difference betwixt *perceptions of ſenſe* and *ideas* muſt appear manifold. In the *firſt* place, Thoſe perceptions are only the *materials* from which *ideas* are formed; and therefore are as diſtinct from *ideas* as the *matter* of any thing is from its *form.* 2*do*, Perceptions of ſenſe ariſe only from objects *preſent*; whereas ideas may be formed, and are commonly formed, from paſt ſenſations, preſerved in the memory or imagination. 3*tio*, The perceptions of ſenſe preſerved in the memory or imagination, are no more than the images of objects, ſuch as they were preſented to the mind by the ſenſes: But neither ſenſe, memory, nor imagination, makes that compariſon which we have ſhewn to be abſolutely neceſſary in order to form ideas. And hence it is, 4*to*, That the perceptions

of ſenſe, though retained in the memory, are all of *individual* things; whereas ideas are all of *generals*, being of things common to many individuals. And, *laſtly*, In the formation of ideas, the mind is altogether active; whereas, in the perceptions of ſenſe, it is merely paſſive. What confuſion, therefore, muſt it not have produced in philoſophy, the not diſtinguiſhing things ſo different in their nature, and the operations of faculties ſo different as *ſenſe* and *intellect*?— And ſo much for the ideas that are formed immediately from the perceptions of ſenſe.

As to the ideas which ariſe from the operations of the mind, and which I ſhall call, with Mr Locke, *ideas of reflection*, they are formed in the ſame manner: For the mind preſerving the memory of its own operations, as well as of external objects, and reviewing and comparing together the individual operations thus preſerved in the memory, and diſcovering ſomething *common* to ſeveral of them, of that *one common thing* it forms the *idea*; and in that way we come by the ideas of *doubting*, *deliberating*, *affirming*, and of *thinking* in general. This, I believe, is agreeable to Mr Locke's notion of

ſuch ideas; and, as he has obſerved, under the *operations* of the mind we ought to include the *paſſion* as well as the *action* of the mind: So that the ideas of pleaſure and pain, (not the actual feeling, for that is mere ſenſation*), and of all their various modifications in the different paſſions, are all ideas which we get from reflection. But we ſhould carefully diſtinguiſh two things that he has not diſtinguiſhed, viz. the *particular* operations of the mind, and the idea or *general notion* thence formed; which he has

* I call it *mere ſenſation*, when there is no *perception of any external object*: For it is to be obſerved, that the word *ſenſation*, as it is commonly uſed, is equivocal, denoting either the perception of any external object by the ſenſes, or the inward feeling of pleaſure or pain ariſing from the body; and which is always accompanied with a certain emotion and alteration of the mind. This laſt kind of ſenſation is often joined with the former; for often, when we feel pain, we perceive at the ſame time the external object that produces it; as when a man is pricked by a ſword, or burnt with a hot iron. At other times, we feel pain without the perception of any external object; which is the caſe where the body labours under any diſeaſe. And as thus we have ſenſation of pain, without the perception of any external object; ſo, on the other hand, we have very frequently, and indeed moſt commonly, the perception of external objects without either pain or pleaſure.

confounded in the ſame manner as he has confounded the *particular perceptions* of ſenſe with the *ideas* formed from them.

From this account of the formation of our ideas, it is evident, that the mind forms them without any aſſiſtance from the ſenſes. With reſpect to the ideas of reflection, there cannot be the leaſt doubt, as the ſenſes do not ſo much as furniſh the materials out of which they are formed: And, with reſpect to the ideas ariſing from ſenſation, it is evident, that the ſenſe furniſhes only the materials, upon which the mind works by itſelf, and forms the ideas: For thoſe ideas, as we have ſhewn, ariſe from the mind's comparing together the perceptions of ſenſe, and diſcovering betwixt them certain reſemblances and ſimilitudes. Now, it is impoſſible that the ſenſe can *compare* or perceive relations of any kind; and therefore this *comparing faculty* is the peculiar property of the *rational;* or, as the Greeks call it, the *logical* mind: For the Greek word λογος, which the Latins render by the term *ratio*, properly ſignifies *a relation.* And accordingly Euclid, * who muſt be ſuppoſed to

* The definition is, Λογος ἐστὶ μεγεθων ὁμογενων κατα πηλικοτητα ποια σχεσις, *lib.* 5. *def.* 3. And the learned in the

ſpeak with the greateſt propriety, ſo defines the word applied to magnitude.

If any man, notwithſtanding what is ſaid, can have the leaſt doubt of theſe ideas formed from the perceptions of ſenſe being the act of the mind ſingly, as well as ideas of reflection, let him conſider that claſs of them which are called ideas of *relation*, ſuch

Greek language may obſerve, that this is the proper *etymological* ſenſe of the word λογος; for it is derived from λεγω; of which the antient ſignification was to *gather* or *collect*; in which ſenſe it is uſed by Homer, and in the moſt antient dialect of Greek extant, I mean the Latin language; and in the later Greek it is ſtill uſed in that ſenſe in compoſition, as in the word ζυλλογος. From this original ſignification, λογος, by a very natural *metonymy*, came to ſignify *relation* or *compariſon*; which cannot be made without collecting the things together, and ſetting them, as it were, beſide one another. And accordingly this very word *compariſon*, from the Latin *comparo*, and likewiſe *confero*, *compono*, all denote *ſetting together* or *juxtapoſition*.

From the word λογος, the Greeks derive the adjective λογικος, which, according to the propriety of that language, ſignifies, *having a natural aptitude to acquire this comparative faculty we call* REASON. And it is in this ſenſe that it is uſed in the definition of man, who is ſaid to be ζωον λογικον, which therefore comprehends an infant as well as a grown man. But as this deſcription is not ſufficient to diſtinguiſh man from the brute animals, which, as we have ſeen, have this comparative faculty as well as we, at leaſt to a certain degree; therefore they add to the definition νου και επιστημης δεκτικον, by which the brute is altogether excluded; as ſhall be explained afterwards.

as *likeneſs*, *diverſity*, *double*, *half*, and the like. Theſe ideas are certainly formed from ſenſible objects, as much as the idea of a *man* or a *horſe*; yet no body, I think, will ſay, that the ſenſes have any concern in the formation of them; and the reaſon is plain, namely, becauſe they are compariſons which the mind makes of two or more things*.

* Plato, in the paſſage quoted above from the Theaetetus, gives examples of ideas of this kind, to prove that the mind thinks and perceives by itſelf, without the aſſiſtance of the body or its organs. Socrates is there ſpeaking of the two ſenſes of hearing and ſeeing; and, after having eſtabliſhed, that what we perceive by the one we cannot perceive by the other, he aſks Theaetetus, whether, when we think of *both* theſe ſenſes, we do it by the organs of *either*; or, when we think of *either*, is it done by the organs of both? For this is truly the ſenſe of the paſſage, though the words will not bear it, as they ſtand in the printed editions, thus: Ει τι αρα περι αμφοτερων διανοη, ουκ αν δια γε του ετερου οργανου, ουδ' αυ δια του ετερου περι αμφοτερων αισθοιτο αν. *Theaetet. tom.* 1. *p.* 185. *Edit. Serrani.* But the laſt member of the ſentence ought to be read thus, ουδ' αυ δια των αμφοτερων περι του ετερου αισθοιτο αν. Theaetetus anſwers, 'That we do not think ſo by the 'gans of either, or of both. Firſt, then, ſays Socrates, 'concerning colour and ſound, do not we think this of 'both, that they are *both*?—Certainly.—And likewiſe, that 'each of them is different from the other, and the ſame 'with itſelf?—No doubt. And that both are *two*, and each 'of them *one*?—This likewiſe.—And cannot you conſider

Now the other ideas derived from the ſame ſource, though they are not actual compariſons made by the mind at the time we ſpeak or think of them, and therefore are not ideas of *relation*; yet they are the reſult of compariſons formerly made; from which we collect that *common nature* which makes *the idea* of any object of ſenſe. It is therefore evident that, in this ſtate of our exiſtence, we think and form ideas only by *compariſon*. The reaſon of which is obvious, from what has been ſaid, viz. That we collect our ideas from objects of ſenſe that we ſet together and compare. Intelligences of a higher order have, no doubt, a manner of conception very different, but of which it is exceedingly difficult for us to have even an idea *.

‘ whether they be *like* or *unlike*?’—And in this way he goes on, till it comes out, that the ideas of *being* or *not being*, *like* or *unlike*, the *ſame* or *different*, *one* or *many*, are all ideas which the mind forms by itſelf. Theſe ſo general ideas Plato has choſen as moſt evident proofs of his propoſition. But it is clear, from what is ſaid above, that the argument goes to all general conceptions.

* There was, however, among the antients a kind of myſtic philoſophy, founded upon the writings of Plato, which profeſſed to exalt human nature above the preſent condition of mortality, to a degree of intelligence which we conceive to belong only to ſuperior natures. This philoſophy prevailed much in later times. It began with

And thus it appears, that the diviſion of the conceptions of the mind made by Plato

Plotinus of Alexandria, the ſcholar of Ammonius Saccas, and continued through his ſucceſſors, Porphyry and Jamblichus, down to Proclus, the greateſt of all theſe philoſophical myſtagogues, and who was thought to explain ſo well the abſtruſe parts of Plato's philoſophy, that he was honoured with the name of his Succeſſor, (διαδοχος Πλατωνικος). Theſe philoſophers, by a certain courſe of ſtudy and method of living, pretended to raiſe the human mind above νους or *intellect*, and to make it conceive even intellectual things, not in the ordinary way, by compariſon, that is, by circuit and collection, but directly and immediately, (μετα επιβολης or ευθυβολιας, as they expreſſed it), in the ſame manner as we perceive objects of ſenſe. And in this way, they ſaid, and this way only, was that being to be conceived, who was above all time and place, and even ſubſtance, (υπερουσιος), in ſhort, exiſted in a manner altogether different from every thing elſe. See *Proclus in Plat. Theolog. lib.* 2. *cap.* 13. *et paſſim.*

Whether theſe philoſophers had not too high a notion of the perfection to which our nature might attain, when they thought that we could change the very manner of our perception, is not my buſineſs at preſent to inquire: But ſo far at leaſt is certain, though I think it has not been obſerved by any modern philoſopher, that the manner in which the intellect operates is entirely different, at leaſt in ordinary men, from that in which the ſenſe performs its operations. For the ſenſe directly and immediately apprehends its object; whereas the intellect operates only by compariſon, and by collecting likeneſſes and diſſimilitudes from different objects, as ſhall be afterwards more fully explained.

is well founded; and that there are truly conceptions, which are the act of the mind operating by itſelf, without any aſſiſtance from the ſenſes. And thus I would fain hope, that I have diſtinguiſhed the *perceptions of ſenſe* from *ideas* in ſuch a manner, that they will not again be confounded, and that we ſhall hear no more ſo ſtrange a language in philoſophy, as that which ſpeaks of *viſible* and *tangible ideas**.

CHAP. VII.

Of Abſtract Ideas.—That there are Ideas which are not abſtract.——Of the three ways in which Ideas exiſt.

IN the language of our modern philoſophy, *general ideas*, and *abſtract ideas*, are underſtood to be ſynonymous terms; and every notion of the mind that is *abſtracted* is underſtood to be *general*; and, *vice ſa*, every *general notion* is conceived to be *abſtracted*. But this I hold to be a miſtake;

* This is the language of Dr *Berkeley* in his *Theory of Viſion*.

For, in the firſt place, I think I have ſhewn, that we not only *may* have a conception of a particular quality of any ſubſtance, *abſtracted* from its other qualities, without conceiving ſuch quality to belong to any other ſubſtance; but that we *muſt* have had ſuch an *abſtract* conception before we could have any *general* conception. And we may go further, and ſay, that ſuch abſtracted conception of the individual quality may never be generalized. Thus, *e. g.* if I believe that there is ne other ſun in the univerſe than ours, and if I conſider his rays, or any other quality peculiar to him, ſeparately from his other qualities, I have an *abſtracted* notion of his rays, but no *general* notion or *idea* of them.

Thus it appears, that there may be *abſtraction*, without *generalization*. But can there be *generalization* without *abſtraction*? Or are there no other ideas but *abſtract* ideas? That all thoſe in the human mind are ſuch, is admitted. But are there no other in the univerſe? Does every intelligence think in the manner we do? If ſo, *matter* muſt be the *eldeſt* of things; and even *mind* and *intelligence* are to be derived from it: For that muſt be the conſequence,

if there be no ideas, but ſuch as ariſe from matter; becauſe it is impoſſible to conceive intelligence without ideas. And yet to this conſequence Mr Locke's philoſophy naturally leads; which makes mind ſo dependent upon body, as not to operate without it, and knows nothing beyond ſenſation, and its *ideas*, as he calls them. I am perſuaded, that Mr Locke did not mean to draw ſuch conſequences from his philoſophy; but it is certain, that ſuch conſequences have been drawn from it, and that the moſt extravagant ſyſtems of ſcepticiſm have been founded on it.

The philoſophy I have learned is of a very different kind: It teaches me, that mind is the moſt antient of things *; and that, as it alone has activity, and the *principle of motion in itſelf*, it is the efficient cauſe of every thing: That therefore there are *ideas* of a much higher order than thoſe which we abſtract from matter, being the *models* or *archetypes* of all *material forms*: That of ſuch ideas *the intellectual world* is compoſed; of which *the material* is no more than a copy: That there are other intelli-

* *Plato, in Epinom. p.* 1008. *edit. Ficini.*

gences in the univerſe beſides ours, and infinitely ſuperior to ours; and *one* higheſt of all, in whoſe intellect reſides that intellectual world, and who is not only the *efficient cauſe* of all things, but *virtually* comprehends in himſelf every thing exiſting.

Theſe ideas of higheſt order and dignity are, in the language of antient philoſophy, ſaid to be *before the many* *; that is, anterior to all individual and particular forms; which being infinite in number, are ſaid to be *many*, in contradiction to the *one* idea that is the patern of them. Again, if they are conſidered as exiſting in the particulars or individuals of which they conſtitute the nature and eſſence, they are ſaid to be *in the many* †. And in this way exiſts the whole *viſible world*; which is nothing but the intellectual world made perceptible to the ſenſe. And laſt of all come the ideas of our minds abſtracted from the *many*; that is, from the material world: For ſuch is our condition in this period of our exiſtence, that we muſt neceſſarily draw all our ideas from that

* Πρὸ τῶν πολλῶν.

† Ἐν τοῖς πολλοῖς.

ſource; and this ſort of ideas is ſaid to be *after the many* *.

To this triple order of forms, as Mr Harris elegantly calls them, belong three ſeveral ſciences. To the firſt and higheſt order belongs that ſcience, which, from Ariſtotle's method of treating it, has got the name of *metaphyſics*; but I think is better denominated the *firſt philoſophy*: The ſubject of which are the *intellectual forms*, previous to the *material*, of which they are the pattern, and eternal and unchangeable, as not partaking of the corruption or contagion of matter; and therefore having a fixed and permanent exiſtence: For thoſe forms that are *united with matter* are in a conſtant change and flux, as well as the matter itſelf †. Of theſe intellectual forms, this ſci-

* Επι τοις πολλοις. See Mr Harris's *Hermes*, *book* 3. *ch.* 4. where this doctrine is finely illuſtrated by an example from the works of art, and by ſeveral elegant quotations from the Greek commentators upon Ariſtotle. What I have here ſaid relates only to the works of nature.

† See upon this ſubject a *Pythagorean* philoſopher of the latter times, *Nicomachus Geraſinus*, in his treatiſe upon *Arithmetic*, *in initio*. The paſſage is ſomewhat long, but I will tranſcribe it for the ſake of the learned reader, who may not have the book, as it is rare, never having been

ence explains the nature; and in thoſe of them that are moſt general, ſuch as the *categories* above mentioned, contemplates the *firſt principles and elements of things*: For

but once printed. It is where he comments upon Pythagoras's definition of philoſophy, which was ἐπιστήμη τῶν ὄντων. Upon that occaſion, he explains what the ὄντα, or *things really exiſting*, are, in contradiſtinction to what has no fixed or permanent exiſtence. The words are, Ὄντα δὲ, τὰ καθ' ἑαυτὰ καὶ ὡσαύτως ἀεὶ διατελοῦντα ἐν τῷ κοσμῳ, καὶ οὐδέποτε τοῦ εἶναι ἐξιστάμενα, οὐδὲ ἐπὶ βραχύ. Ταῦτα τ' ἂν εἴη, τὰ αὐτὰ· καὶ ὧν κατὰ μετουσίαν ἕκαστον λοιπὸν τῶν ὁμωνύμως ὄντων καλουμένων, τοῦδέ τι λεγόμενα καὶ ἔστι. τὰ μὲν γὰρ σωματικὰ ἅπαντα καὶ ὕλικα, ἐν διηνεκεῖ ῥύσει καὶ μεταβολῇ, διὰ παντὸς ἔστι, μιμούμενα τὴν τῆς ἐξ ἀρχῆς εἰδίου ὕλης καὶ ὑποστάσεως φύσιν καὶ ἰδιότητα· ὅλη γὰρ δι' ὅλης ἦν τρεπτὴ καὶ ἀλλοιωτή. τὰ δὲ περὶ αὐτὴν, ἃ καὶ σὺν αὐτῇ θεωρούμενα, ἀσώματα· οἷον ποιότητες, ποσότητες, σχηματισμοὶ, μεγέθη, μικρότητες, ἰσότητες, σχέσεις, ἐνέργειαι, διαθέσεις, τόποι, χρόνοι· πάντα ἁπλῶς, οἷς περιέχεται τὰ ἐν ἑκάστῳ σώματι, ὑπάρχει καθ' ἑαυτὰ ἀκίνητα καὶ ἀμίαντα· συμβεβηκότος δὲ μετέχει καὶ παραπολλυμένων τῶν περὶ τὸ ὑποκείμενον σῶμα πάθων. τῶν δὴ τοιούτων, ἐξαίρετος ἐπιστήμη ἐστὶν, ἡ σοφία· συμβεβηκότος δὲ, καὶ τῶν μετεχόντων αὐτῶν, ὅσα ἐστὶ σωμάτων. Ἀλλ' ἐκεῖνα μὲν αὐλα καὶ εἰδικὰ, καὶ ἀτελευτήτως, καὶ διὰ παντὸς ὁμοῖα, καὶ ἀπαραλλάκτα, φύσει διατελεῖν, ὅσαπερ τῇ αὐτῶν οὐσίᾳ ἐπιδιαμένοντα. καὶ ἕκαστον αὐτῶν, μόνῳ ἂν λέγεται. The ſenſe in ſubſtance is, that *ideas*, or *intellectual forms*, *alone* can be properly ſaid *to exiſt*, being immaterial, eternal, and unchangeable; that *matter and body* are, by their natures, in a continual *flux and change*; that it is only by *participation* of the *intellectual form* that the *corporeal form* can be ſaid to have any exiſtence at all

all things exiſting, are nothing elſe but thoſe univerſals unfolded, as it were, and developed. From the intellectual world, it naturally aſcends to the contemplation of that *univerſal mind*, in which this intellectual world is contained; and *that* makes the higheſt part of this philoſophy, called by the antients *theology*. With reſpect to the ideas *united* with matter, that is, *material forms*, they are the ſubject of that ſcience called *Natural Philoſophy*. And as to ideas *abſtracted* from matter, the ſcience converſant about them is what we call *mathematics* *; the ſubject of which are, *length*, *breadth*, *thickneſs*, and, in general, *magnitude*, likewiſe *number*, and its *affections*, *ratios*, *proportions*, &c.: Which are all ideas abſtracted by our minds *from* material forms, and not conſidered as exiſting *in* thoſe forms, for then they become the ſubject of *natural philoſophy* or *mixed mathematics*; nor as *pre-*

that theſe *intellectual forms*, though of their own nature *immortal*, yet being united to body, they, by accident, (συμβεβηκοτος) partake of its affections, and become liable to change.

* This is the way in which Ariſtotle has divided the ſciences. See his *Metaphyſics*, *lib.* 6. *in initio*.

vious to thoſe forms; for, in that view, they would be the ſubject of the *firſt philoſophy*.

If this account that I have given of theſe three orders of ideas be juſt, any philoſophy of ideas which does not diſtinguiſh them muſt appear very defective. The firſt are the fountain and ſource of the other two, if it be true that this world is the production of mind and intelligence, not of blind chance; for, if ſo, there muſt be an *intellectual* world previous to the *material*. To deny, therefore, the exiſtence of ſuch ideas, is to deny, that the univerſe is the work of *mind*. This is an impiety which I am far from imputing to Mr Locke: But thus much I may be allowed to ſay, that, by not carrying his philoſophy of ideas beyond ſenſe and matter, he has given, at leaſt, the appearance of *materialiſm* to his ſyſtem *.

*It is really ſurpriſing, that an author who treats profeſſedly of the philoſophy of mind, ſhould never have made the proper diſtinction betwixt mind and body, two things as oppoſite to one another, as any two things can be, and which do not, like other things in nature, run into one another. But, ſo far from making the diſtinction betwixt them, it is plain, that he has confounded them; for not only does he derive his whole doctrine of ideas from body, but he has expreſsly ſaid, that there is no contradiction in body thinking, and that it may be ſo modified

CHAP. VIII.

Of perfect and imperfect Ideas.—Of the Ideas of Plato.—Of Science and Opinion; and the Difference betwixt theſe two.

IN deſcribing the progreſs of the human mind in the formation of ideas, I have ſaid, that the idea may be more or leſs *per-*

as to have that faculty. [Eſſay on, &c.] Lib. 4. cap. 3. ſect. 6. But this, I hold, to be joining together two ideas altogether repugnant, and excluſive the one of the other. For what is body? It is that which has not the power of moving itſelf, or of beginning motion. What again is mind? It is that which has the power of moving itſelf, and of beginning motion. In this way, Mr Locke himſelf appears to have defined them, when he has ſaid, *That matter cannot move itſelf.* Ibid. lib. 4. cap. 10. ſect. 10. And again, *Active power is the proper attribute of ſpirit; Paſſive power of matter.* Lib. 2. cap. 23. §28. Now, there can be nothing more oppoſite or contradictory than affirmation and negation, ſo that we may as well conceive the ſame body to be, at the ſame time, and in the ſame reſpect, both round and not round, as to conceive body thinking, or, what is the ſame thing, body to be ſpirit. It is true, that a thinking ſubſtance may be joined with body or matter, which is the caſe of the human mind, ſo that the one ſhall affect the other by a moſt wonderful ſympathy, for which we cannot account; but, we muſt not, therefore, confound the two ſubſtances, or ſay that body is or can be mind.

ſect; from which, it follows, that there may be a general notion or conception of the thing, but ſuch as is not what we emphatically, and properly enough, in Engliſh, call the *idea of a thing*. This requires explanation; without which our philoſophy of *ideas*, and conſequently of *language*, of which ideas make ſo eſſential a part, would be imperfect.

From the account we have given of the formation of ideas, it is plain it muſt be a work of difficulty, if rightly performed, requiring attention and accuracy. It is therefore impoſſible that it can be equally well performed by all, or by any at firſt. The brute, as we have ſeen, has ſome confuſed notion of the *ſpecies* in the *individual*. Our children, at firſt, I am perſuaded, have no more diſtinct idea of it; and, I believe, they have this further reſemblance to the brute, that the idea, ſuch as it is, is excited only by the preſence of the object, or by ſome bodily impulſe of one kind or another; their minds not having yet acquired that *ſelf-moving* power, by which the mind, without ſuch excitement, reviews and compares together the perceptions of ſenſe lodged in the memory or imagination. They learn, no

doubt, by converſation with grown perſons, to form, pretty early, more diſtinct conceptions of the different ſpecieſes of *ſubſtances*: But as to *qualities*, and particularly *general* qualities, ſuch as, *good*, *bad*, *fair*, *handſome*, *juſt*, and *unjuſt*, though they have thoſe words frequently in their mouths, the ideas they annex to them are ſo very confuſed and indiſtinct, as hardly to deſerve the name. Nor have they any clear conception of any term they uſe denoting any general quality, except it be of ſuch as denotes a *ſenſation*, as *ſweet*, *bitter*, *painful*, *pleaſant*; of which they have as clear ideas as many philoſophers. The vulgar may be ſaid to continue children, in this reſpect, all their lives, at leaſt, in ſome degree; for, though their notions are, no doubt, more diſtinct than thoſe of children, and ſuch as they can better explain, yet they are far from being thoſe perfect ideas which we are now to deſcribe.

This idea is no other than the idea of the man of ſcience, or philoſopher; which is very different from that of the vulgar. For, in the *firſt* place, it is entirely ſeparated and abſtracted from every thing material, all the ſeveral particular objects from which it is collected being laid out of the view of the

mind, and *that* only which they have *in common* being conſidered; whereas the vulgar never perfectly make this ſeparation, but ſtill continue to ſee the *one* only in the *many*: So that among them, *man*, *e. g.* is no more than one name given to *Peter*, *James*, and *John*, and other individuals of the ſpecies; and when they want to explain their idea of any thing, they cannot do it without an *example*; that is, without ſhewing to the perſon with whom they converſe, the material image of the thing in their own minds. *2dly*, It is ſuch an idea as conſtitutes the nature and eſſence of the thing unmixed with any thing elſe.

How difficult this laſt requiſite is to be attained, we ſhall be convinced, if we conſider, that *every thing in nature is mixed with every thing*, according to the ſaying of the antient philoſopher, I think it was Anaxagoras. Thus *length*, *breadth*, and *thickneſs*, *figure*, *ſituation*, and *qualities* without number, are all joined together in the ſame ſubject, and, in that way, preſented to the ſenſes. Now, it is the buſineſs of intellect to diſcriminate theſe, and ſetting them each apart by itſelf, in that way, to form the idea

of it. If this is rightly done, then is the idea, that perfect idea we ſeek for, ſuch as is expreſſed in the definitions of the terms of ſcience. But it may be defective in ſeveral reſpects. In the *firſt* place, It may only contain qualities, ſuch as are *accidental*, and not diſtinguiſhing or *characteriſtical of the ſpecies*; as if I were to form my idea of a man from the colour or ſize, or any other property belonging to the individuals I may have ſeen, but not *common* to the ſpecies. *Secondly*, The qualities that form my general idea may be *common* to the ſpecies, but not *peculiar*; as if I ſhould make my idea of a man to be that of a creature walking on two legs, or of a horſe, that of a creature with four legs. *Thirdly*, The quality may be *common* to all the ſpecies, and alſo *peculiar*, but may not contain its *nature* and *eſſence*. Thus, if I define a man by his riſible faculty, or a horſe by his neighing, theſe qualities, though both common, and peculiar to each of theſe ſpecieſes, yet as they do not conſtitute their nature and eſſence, they are not the idea of the philoſopher. *Fourthly*, The qualities of which I form my idea of the ſpecies, I may not have *a clear and diſtinct conception of*; as, *e. g.* if I define

man to be a rational animal, capable of intellect and ſcience, unleſs I know what *rationality* is, and what *intellect* and *ſcience* are, I cannot have a perfect idea of a man. And, *laſtly*, My idea may contain the qualities that are *common* and *peculiar* to the ſpecies, and alſo ſuch as conſtitute its *nature* and *eſſence;* but, if it contains, beſides theſe, other qualities that are *accidental*, or *idiomatical*, that is, peculiar to the individual, or that are *common* to *other* ſpecieſes; in ſhort, if it contains any thing elſe but thoſe very qualities which conſtitute the nature and eſſence of the thing, from which all its *properties* are derived; nay, if it ſhould contain any even of thoſe *properties* which are by demonſtration deducible from its nature; as, *e. g.* if, in my definition of a triangle, I ſhould include the quality of its having its three angles equal to two right ones; it would not be the *perfect idea* of the philoſopher, which muſt contain nothing, as I have ſaid, but the *very eſſence* of the thing.

But, if it have not this ſuperfluity, and have all the requiſites above mentioned, then is it the *idea* of Plato, ſo much talked of,

and ſo little underſtood, being a ſenſe of the word different from that in which it is uſed in modern philoſophy. For it is not the meaning that I have given to it, which comprehends every *general* notion, however inadequate to the nature of the thing; and far leſs is it the idea of Mr Locke, which comprehends even perceptions of ſenſe, tho' it was, no doubt, from the philoſophy of Plato that he borrowed the uſe of the word. This *idea* is the *real thing exiſting* *, of which Plato ſpeaks ſo often in a language that appears myſterious, but which may be underſtood from what I have ſaid: For he tells us, "It is that which makes *one* of "the *many;* which, preſerving the *unity* "*and integrity* of its own nature, runs "through and mixes with things *infinite* in "number; and yet, however *multiform* it "may appear, is always *the ſame*: So that "by it we find out and diſcriminate the "thing, whatever different ſhapes it may "aſſume, and under whatever diſguiſe it "may, *Proteus-like*, hide itſelf †." Now, though this deſcription alludes to a peculiar

* Το οντως ον.

† See *Plato in Philebo, et alibi.*

notion of his concerning ideas, which I ſhall afterwards explain, and which Plato never has out of his view, it may be underſtood of the idea, ſuch as I have deſcribed it, by which we diſcriminate a thing from all others, and find it out mixed with many other things in various forms and ſubſtances.

This perfect idea is, in many caſes, very difficult to be apprehended, eſpecially if it be a very general idea; for ſuch ideas are the principles of things, and therefore the moſt ſimple and uncompounded: But for that very reaſon they are the moſt difficult to be by us apprehended; *firſt*, becauſe we are accuſtomed to perceive only what is mixed and compounded; and, *ſecondly*, becauſe thoſe general principles are joined, and incorporated as it were, with ſo many various forms and ſubſtances, that it is very difficult to evolve them, and ſhew them by themſelves. It is therefore true what Ariſtotle ſays, that thoſe principles, by how much they are great in power and efficacy, by ſo much they are the more difficult to be diſtinctly apprehended.

Of this kind of ideas are the ideas of juſtice, goodneſs, and beauty; which are ſo

general, and therefore of ſo difficult definition, that they furniſhed ample matter for the Sophiſts of old to ſhew their art, and to puzzle and perplex thoſe with whom they converſed. Plato has written no leſs than ten books*, in order to explain what *juſtice* is; and he has given us a definition of it, taken from the ſchool of Pythagoras †, and which is very different from the common notion of it. He has alſo, in the ſame books, ſpoken much of *the good*, or τὸ ἀγαθὸν, but he has not defined it. He tells us, in the way of ſimilitude, that what the ſun is in the viſible world, the τὸ ἀγαθὸν is in the intellectual. And he further ſays, that to know it is the perfection of all knowledge, as it is the governing principle in nature, and ought to be ſo in all human actions and purſuits ‡. Whether Plato himſelf knew any more of the matter than what he has told the reader in theſe books, may perhaps be doubted, though I ſhould incline to think he did; and therefore I hold this to be one of the myſteries of his philoſophy,

* Theſe are his books Περὶ πολιτείας, or *De republica*.

† See the Pythagorean philoſopher *Theages*, in his moſt valuable work, Περὶ ἀρετῶν, inſerted in *Gale's* collection, entitled, *Opuſcula Mythologica, &c. p.* 681

‡ Plato *De Republica, lib.* 7.

which he did not communicate except to a very few: And accordingly it is ſo treated by his later followers, Plotinus, Iamblichus, and Proclus, who have made the doctrine of the τὸ ἀγαθὸν a great part of the *myſtical theology* of Plato.

As to the third of thoſe general ideas, *the beautiful*, or τὸ καλὸν, he has ſpoken much of it in the *Sympoſium:* And as what he ſays there ſhews, that he underſtood *ideas* were formed in the way I have deſcribed, (though by the myſterious manner in which he ſpeaks of them one ſhould think otherwiſe), I will here give the ſubſtance of it. "The firſt ob-"jects," ſays he, "in which we diſcern the "beautiful, are *corporeal forms:* And we be-"gin with loving *one* beauty of that kind; "from thence we proceed to contemplate "other beauties of the ſame kind, till we diſ-"cover *that* in which they all reſemble one "another; and then, abating of our love "for *the individual*, we come to be lovers "of *this ſpecies* of beauty, and general ad-"mirers of *all fine forms*. From body we "next proceed to *mind*, and diſcover the "beautiful in *characters*, *manners*, and *inſti-"tutions;* and finding here, too, the ſame "reſemblance in all theſe, we become gene-

" ral admirers of this ſpecies of beauty like-
" wiſe, eſteeming but very little the former
" in compariſon with it. The next ſtep is
" to the beautiful *in ſcience:* And here, in like
" manner, we are not to attach ourſelves to
" the beauty of a ſingle ſcience, but in ge-
" neral to contemplate that ſpecies of beau-
" ty; and by this courſe of ſtudy, we come
" at laſt to diſcover the *general idea* of beau-
" ty, comprehending all the ſpecieſes above
" mentioned, viz. the beautiful in *forms*, in
" *manners*, and in *ſcience*. A moſt wonder-
" ful beauty indeed, ſays our author, and
" for the ſake of which only all other beau-
" ties are to be ſtudied. It is eternal and
" incorruptible, having neither beginning
" nor end, increaſe nor diminution: It is not
" beautiful in one reſpect and ugly in ano-
" ther; it is not beautiful at one time, or in
" one place, and ugly at another time, or in
" another place; nor can it be conceived by
" the imagination, like a fine face, or a fine
" hand, or any other corporeal form; nor
" muſt we repreſent to ourſelves this uni-
" verſal beauty as exiſting in any particular
" thing, ſuch as an animal, or even the earth
" and heavens; but we muſt conſider it ſing-
" ly by itſelf, and detached from every thing

"elſe; and all things elſe we muſt conſider "as beautiful, only by *participation* of this "univerſal beauty, which always remains "the ſame, without ſuffering the leaſt im- "pair or diminution by the deſtruction of "thoſe other things in which it exiſts. This, "ſays Diotima, (the propheteſs, in whoſe "mouth Socrates puts this diſcourſe), is the "perfect ſcience of beauty, and will make "you, Socrates, (to whom ſhe is introduced "as ſpeaking), a perfect lover, if you are ca- "pable of being initiated into ſuch myſ- "teries."

In this manner has Plato mixed with the merriment of a feaſt, and even the riot of a debauch, for in that way it ends at laſt, his ſublime philoſophy of ideas and intellectual forms, which he has hardly ever out of his view in any of his dialogues, whether he be ſerious or pleaſant *.

* Thoſe who are not acquainted with this intellectual philoſophy, will be ſurpriſed at one part of this deſcription, namely, that we are not to conſider this idea of beauty as inherent in any particular ſubject, not even the heavens. But thoſe who have ſtudied the precious remains that we have left of the Pythagorean philoſophy, from which it is evident that Plato took almoſt all his philoſophy, particularly his theology and doctrine of ideas, will not be ſurpriſed at this expreſſion of his: For

From what is ſaid, it will be further evident, how difficult it is to give a preciſe definition of ideas of ſuch high abſtraction. Plato, we ſee, has not attempted to define *the beautiful* in this paſſage, nor in another dialogue which he has written wholly upon the ſubject; I mean, the *Hippias Major;*

the Pythagoreans made the ſame diſtinction with reſpect to muſick that Plato makes with reſpect to beauty, diſtinguiſhing ſenſible and intellectual muſic; by which laſt they underſtood the ratios and proportions of numbers, conſidered ſimply by themſelves, abſtracted from voice or ſound, and every ſenſible object, even the ſtars or planets; (ſee *Nicomachus's Arithmetic, p.* 5.). So that this muſic, according to their notion, was ſuperior even to their muſic of the ſpheres, ſo much talked of, and ſo little underſtood. If it be objected, that this intellectual muſic of the Pythagoreans is as difficult to be conceived as Plato's intellectual beauty, I anſwer, that I myſelf have known a man who underſtood it perfectly, and took great delight in it; for he would ſpend whole days in reading muſic, without applying either voice or inſtrument to it. Now this was certainly intellectual muſic, though conveyed to the mind by ſenſible marks, as much as reading any book is an exerciſe of the intellectual faculty, though the thoughts are there likewiſe conveyed to the mind by ſenſible characters; becauſe, in both caſes, the marks have not the leaſt analogy or reſemblance to the things ſignified; and therefore they only excite the memory, but do not in the leaſt operate upon the ſenſe or imagination. The pleaſure, therefore, of this muſician, muſt have been altogether intellectual, produced by the idea of thoſe numbers of which melody and harmony conſiſt.

where he ſhews indeed very clearly, that Hippias did not underſtand what it was; but he makes us nothing the wiſer for that. The good, as I have ſaid, he explains by a ſimilitude, in the ſame manner as he does the nature of the ſoul in the *Phaedrus*; where he tells us, that to have the idea of the ſoul, (that is, in his language, the perfect idea above mentioned), is divine knowledge, and of moſt difficult attainment: But to know what it is like, is human, and of leſs difficulty *.

This diſtinction betwixt *perfect* and *imperfect ideas*, which I have ſo much inſiſted upon, will explain a thing that is but little underſtood, the difference betwixt *ſcience* and *opinion*. The ſubject of ſcience is *perfect ideas*, ſuch as I have deſcribed them; the ſubject of opinion is *imperfect ideas*. For, if the idea wants any of the requiſites above mentioned; if it is not *common* to all the individuals of the ſpecies; or, though common, if it be not *peculiar*; or, though both common and peculiar, if it be not *eſſential*; or, with all theſe three requiſites, if we have not

* P. 1221. *Ficini.*

a *clear* and *diſtinct conception* of it; or, laſtly, if, beſides the eſſential qualities, we throw into our idea of the thing *others not eſſential*; in ſhort, if it be not *the idea of the thing*; then is it the ſubject of *opinion*, about which we ſee men wrangle and diſpute without end; becauſe they do not argue about the thing itſelf, but about an imperfect notion of it. It was not therefore without reaſon that Plato ſaid, that the ſubject of opinion was neither the τὸ ὄν, or *the thing itſelf*, nor was it the τὸ μὴ ὄν, or *nothing*; but ſomething *betwixt* theſe two. This may appear at firſt ſight a little myſterious, and difficult to be underſtood: But, like other things of that kind in Plato, when examined to the bottom, it has a very clear meaning, and explains the nature of opinion very well: For, as he ſays, every man that *opines* muſt opine *ſomething*. The ſubject of opinion, therefore, is not *nothing*; at the ſame time, it is not *the thing itſelf*, but ſomething betwixt the two.

There is a difference alſo betwixt ſcience and opinion in the *diſcurſus mentis*, or the combination and compariſon of ideas, as well as with reſpect to the ſimple ideas.

But to treat of this would carry me too far from my preſent purpoſe.*.

* Theſe *ideas of Plato* being the ſubjects of ſcience, are, in the language of Ariſtotle's philoſophy, the τα νοητα, that is, *the objects of intellect*, or of that faculty of the human mind which, in the proper ſenſe of the word, is called νους; by which, not general conceptions only are formed, but perfect ideas, ſuch as contain the nature and eſſence of things. The concluſions from thence deduced with demonſtrative certainty by the *diſcurſus mentis*, make what the Greek philoſophy calls επιστημη, and which we may expreſs in Engliſh by the word *ſcience*. And now it is eaſy to explain the whole of the definition of *man*, of which before I explained only a part. The definition is, ζωον λογικον, τε και επιστημης δεκτικον, that is, *a rational animal, capable of intellect and ſcience*. By the *firſt* part of the definition, as I have already obſerved, is expreſſed a *natural aptitude* to attain that faculty of *compariſon* which is the foundation of our rational nature; for λογος, as I have ſhewn, in its proper ſignification, denotes *compariſon*, though it is commonly uſed to denote all the *operations* of intellect, and *intellect itſelf*. Of this comparative faculty, for which he has a natural aptitude at the time of his birth, he, as well as many other animals, acquires the actual poſſeſſion, when he comes to a certain age. But as to intellect (by which, as I have ſaid, I expreſs the Greek word νους, that is, the faculty of forming perfect ideas, as above deſcribed) and ſcience, he may be in ſuch circumſtances of life, as never actually to acquire theſe; and in fact, all the ſavage nations, and by far the greater part of the civilized, have neither the one nor the other. Every man however is thought to be capable of attaining them, if his mind be properly cultivated; and therefore that capacity is made part of the definition, by which, as I have ſaid, man is diſtinguiſhed from the brute animals, that are not ſuppoſed capable of attaining to intellect and ſcience.

CHAP. IX.

Of Plato's peculiar Notion concerning the Exiſtence of Ideas.—The Opinion of ſome modern Philoſophers upon that Subject.

THE doctrine of ideas, as I have delivered it, is taken from the Peripatetic ſchool. I have ſhewn, at the ſame time, that, with reſpect to the formation of them by the human mind, Plato does not differ from Ariſtotle. But I mentioned a peculiar opinion of Plato concerning ideas, which it is poſſible the curious reader, if he does not already know, may deſire to know; and which therefore, as belonging to the ſubject we are now treating, I will endeavour to explain.

Theſe perfect ideas of Plato which I have deſcribed, are no other than the ſpecieſes of things which were held by Ariſtotle to exiſt in the mind of the deity; and every body who believes the univerſe to be the production of mind, and not of blind chance, muſt be of the ſame opinion. They are therefore thoſe previous forms, as Mr Har-

ris calls them, which are truly eternal and unchangeable, and may be ſaid to have a real exiſtence, in contradiſtinction to corporeal forms, which are fleeting and periſhable, and in a conſtant viciſſitude of generation and corruption. Thus far, therefore, Plato and Ariſtotle agreed, and in general all the antient philoſophers who were not Atheiſts. But Plato went further, and maintained, that thoſe ideas or ſpecieſes of things had a real exiſtence by themſelves, not only out of any corporeal form, but out of any mind or intelligence: That they were incorporeal ſubſtances, not accidents, or qualities, of other ſubſtances: That they mixed with every thing here below; and that it is by participation of them that every thing is denominated to be what it is. An *individual* man, *e. g.* by the participation of the idea of man, is that animal, and no other, and is called by that name *. What the nature of this *participation* is, or how it is to be conceived that one ſimple indiviſible idea, (for ſuch they all are according to Plato),

* The *idea* of man, in the language of the Platonic philoſophy, is called αὐτο-ανθρωπος, that is, *man itſelf*, or the real man; while the *corporeal* man is only ανθρωπος, or ſimply *man*.

exiſting as a ſubſtance by itſelf, ſhould mix and incorporate with ſo many different maſſes of matter, and yet ſtill preſerve the unity and indiviſibility of its nature, is one of the myſteries of the Platonic philoſophy, which neither he nor any of his followers, ſo far as I know, have ever explained.

This opinion appears ſo extraordinary, that I have known ſome learned men, very much converſant in the writings of Plato, who could not believe that this was really his opinion. But that he did truly hold ſuch opinion, is to me evident: 1*ſt*, From his own writings; particularly, the *Philebus*, which I quoted above, the *Sophiſta*, and the *Parmenides*; in which laſt he treats profeſſedly of *ideas*, and of the *one*, and ſtates ſeveral different opinions concerning them. And, indeed, as I ſaid before, this doctrine of ideas runs through his whole philoſophy, and is hardly ever out of his view: So that it is not from a ſingle paſſage that we collect this opinion; but from the whole ſtrain of his writings.

2*dly*, If there were any doubt as to Plato's meaning, or, if we could ſuppoſe that it was not his own opinion, but only put into the mouth of the interlocutors in his dialogues,

and maintained, by way of argument, as he maintains ſeveral things which he certainly did not believe himſelf, we have the teſtimony of his ſcholar Ariſtotle; who has told us, in the moſt expreſs terms, that his opinion was ſuch as I have ſtated it; and not only ſo, but he has beſtowed the greateſt pains, and employed all the acuteneſs of his genius, and all the ſubtlety of his logic, in refuting it; and this not in one place only, but in many paſſages both of his *Metaphyſics and Phyſics*, and even in his *Ethics*; where he makes an apology for differing from a man for whom he had ſo great a regard *. In ſhort, it appears from the writings of Ariſtotle, that this was the chief ground of that difference of opinion, which, it is well known, was betwixt him and his maſter. I know there are ſome who think, that Ariſtotle has often miſrepreſented the opinions of other philoſophers, that he might have the pleaſure of refuting them, and expoſing their abſurdity; and, among others, his commentator Philoponus is of that opi-

* *Ethic. ad Nicom. lib. 1. cap. 4.*

nion *. But whatever freedom he might have uſed with the opinions of more antient philoſophers, we can hardly believe that he would have ventured to miſrepreſent the opinion of his own maſter Plato, which muſt have been well known to many others. But, beſides, he has not only told us, that this was the opinion of Plato, but he has alſo given us a probable enough account how he came to form it. He had learned, ſays he, when he was very young, from ſome diſciples of Heraclitus with whom he converſed, that all material things were in a perpetual flux; and therefore that there could be no ſcience or diſtinct comprehenſion of them: And this always continued to be his opinion. Afterwards he became the ſcholar of Socra-

* This paſſage is to be found in *Philoponus's commentary* upon Ariſtotle's third book of General Phyſics, or, *De naturali auſcultatione*, where he plainly ſays, that it was a common practice of Ariſtotle to affect to miſunderſtand the antient philoſophers, and to refute their words, not their meaning. Και ουτως επιλαμβανεται του λογου, ως δηλονοτι πανταχου το φαινομενον ελεγχειν, και ου την διανοιαν των αρχαιων. A moſt grievous charge againſt his candour, by a diſciple too of his ſchool, and one, who, in other reſpects, was his great admirer.

tes, whoſe philoſophy was entirely confined to morals; but who firſt attempted, ſays our author, to define and inveſtigate generals. This Plato learned from him; but, perceiving that there could be neither definition nor ſcience of the objects of ſenſe, for the reaſon juſt now mentioned, and thinking it was neceſſary that the ſubjects of ſcience ſhould be ſomething fixed and permanent: He, therefore, introduced *ideas*, which he conceived to be eternal and unchangeable, and to have an exiſtence by themſelves, independent of all *material things* *.

But, 3*dly*, Suppoſe that we ſhould reject the authority of Ariſtotle altogether in this matter, the ſame Philoponus, who has accuſed this philoſopher of miſrepreſenting the opinions of antient philoſophers, has himſelf ſtated the opinion of Plato to be ſuch as Ariſtotle has repreſented it. For in his commentary upon the ſecond book of Ariſtotle's Phyſics, ſpeaking of ideas, or forms ſeparated from all matter †, he ſays, they

* *Metaphyſ. lib.* 6. *cap.* 1.

† Χωριστὰ εἴδη, that is what Mr Harris calls *previous forms*, in contradiſtinction to forms exiſting either *in* material ſubſtances, or abſtracted *from* them by our underſtanding.

are either, according to Plato, ſubſtances, having a ſeparate exiſtence by themſelves †, or they are forms exiſting only in the mind of the creator ‡; which was the opinion of Ariſtotle §.

Laſtly, This opinion concerning ideas, was alſo the opinion of the Pythagoreans; from whom Plato took almoſt his whole philoſophy, and particularly, as it appears, his doctrine of ideas: For in that genuine piece of Pythagorean philoſophy yet preſerved to us, I mean the treatiſe of Timæus the Locrian, *De anima mundi*, ideas are mentioned as one of the three principles of things *; and, as I had occaſion to obſerve before, it was from the ſchool of Pythago-

† Αυτα καθ' αυτα υφεσωσα.

‡ Philoponus's expreſſion is, Λογοι εν τω δημιουργω; for underſtanding which, we are to know, that in the language of Ariſtotle's philoſophy, the thing exiſting ενεργεια, that is, exiſting *materially*, was only called ουσια; but the idea of it was no more than the λογος της ουσιας, or ſimply λογος.

§ And, beſides Philoponus, his maſter Ammonius Hermeias, in his Commentary on Porphyry, εις τας πενλε φωνας, fol. 30. ſpeaking of Plato's opinion of thoſe ideas, ſays, Ουδε γαρ απλως νοησεις αυτα ειναι του δημιουργου βουλησεις, αλλα παραδειγματα ουσιας τινος παντας, προς ας αφορωντα τον δημιουργον, ως προς αρχετυπους εικονας, τα τηδε ποιειν.

* The three principles are, the *idea*, the *matter*, and the *body*, falling under the ſenſes, which is the produce

ras that Plato borrowed the term *idea*, which is now become ſo common a word in the Engliſh language. Further, there is a remarkable paſſage in Simplicius's commentary upon the firſt book of Ariſtotle's *Phyſics*, which ſhows, that the doctrine of ideas made an eſſential part of the *Theology* of the Pythagoreans: For they not only maintained, that ideas exiſted ſeparately by themſelves, but they made them to be a part of the divine nature; which they underſtood to be threefold, conſiſting of ſo many *ones* or *perſons*, as we may call them. "The "*firſt one* was of tranſcendant excellency, a-"bove all *entity* and *ſubſtance*. The *ſecond* "was *ideas*, that is, intelligible things, "which have a real and true exiſtence. The "*third* was *animal life*, or ſpirit, as we may "call it, participating of the *firſt one* and of "*ideas*." If Simplicius delivered this upon his own authority only, we might juſtly doubt of it; but he quotes for it one Moderatus, a philoſopher who appears to have given the beſt account of the doctrines of Pythagoras, and who for that reaſon is fre-

of the two firſt. The words are, Τα δε ξυμπαντα, ιδεαν ὕλαν, αισθητον τε, οἱον εκγονον τουτεων. *Timaeus, in initio,*

quently quoted by Porphyry in his life of Pythagoras. Simplicius gives us the very words of this philoſopher, which I have tranſcribed below *.

I have dwelt the longer upon this difference betwixt Plato and his ſcholar, that many authors, both antient and modern, have laboured much to prove, that there was really no difference betwixt them: But, however ſucceſsful they may have been in reconciling

* Οὗτος γαρ, (meaning Moderatus), κατα τους Πυθαγορειους, το μεν πρωτον ἑν ὑπερ το ειναι και πασαν ουσιαν αποφαινεται· το δε δευτερον ἑν, ὁπερ ἐστι το ὀντως ὀν και νοητον, τα εἰδη φησιν ειναι· το δε τριτον, ὁπερ ἐστι ψυχικον, μεταιχειν τε ἑνος και των εἰδων, *fol.* 50. This paſſage plainly ſhews, that Plato took from the Pythagoreans, not only his doctrine of *ideas*, but his *theology*, and particularly his notion of the *Trinity* in the divine nature, which I took occaſion to mention in a former note. This notion appears to me to be as antient as any thing in the Greek philoſophy, and very probably was brought by Pythagoras from Egypt with the reſt of his philoſophy.

Thoſe who are learned in the *Hebrew*, and the books of *Moſes*, may perhaps find the *Platonic* doctrine of ideas in that paſſage of the ſecond chapter of *Geneſis*, where it is ſaid, *That God made every plant in the field before it was in the earth, and every herb in the field before it grew*; which I think can hardly be underſtood but of the *ideas* of ſuch plants and herbs. And the ſame learned men may alſo find ſome connection betwixt that *water*, which Simplicius, in the ſame book, *fol.* 51. ſays the Egyptians made the ſymbol of the *firſt matter*, and *that deep, and thoſe waters*, upon which *Moſes* ſays the Spirit of God moved when the world was created.

them upon other points, they are, I think, clearly irreconcileable with reſpect to ideas.

The very reverſe of this opinion of Plato is the notion of certain philoſophers of our own time concerning ideas. For as Plato maintains, that ideas are ſubſtances, which have a ſeparate exiſtence by themſelves out of any mind, theſe philoſophers, on the other hand, aſſert, that they have no exiſtence at all, not even in the mind; that all our conceptions are perceptions of ſenſe, being nothing elſe but *impreſſions* made upon the mind by external objects, through the medium of the organs of ſenſe. Theſe impreſſions being preſerved in the memory, are what we call *ideas;* which therefore are nothing but fainter perceptions of ſenſe. This doctrine was firſt advanced by Dr Berkeley, Biſhop of Cloyne, and afterwards ſupported, and much enlarged upon, by a later philoſopher, in a work, entitled, *A treatiſe of Human Nature;* to which, as he has not put his name, nor ever publicly acknowledged it, ſo far as I know, I think he has a right not to be named. That this later writer, who profeſſes the ſceptical philoſophy, and whoſe intention appears to be, to

overturn all ſcience and evidence of every kind, ſhould be fond of a doctrine that ſuits ſo well with his purpoſe, is no wonder at all: But I do wonder that Dr Berkeley, whoſe intentions were certainly good, however erroneous his philoſophy may be, ſhould have advanced it; more eſpecially as it does not appear to me to have any connection with his favourite doctrine of the *nonexiſtence of matter*, which he maintained with the pious deſign of ſtriking at the very root of *Atheiſm*, then entirely founded upon the doctrine of *materialiſm*. For he thought that, if he could ſhow that *matter* did not exiſt, it would follow of neceſſary conſequence, that there was nothing in the univerſe but *mind*; not foreſeeing, that a philoſopher was to ariſe, who ſhould deny the exiſtence of mind as well as body.

The conſequence of the opinion of theſe gentlemen, concerning ideas, certainly is, that there is no ſcience, demonſtration, nor general truth of any kind; nay, there cannot be ſo much as a general propoſition, nor indeed any propoſition, as one term at leaſt of a propoſition muſt be a *general term*, expreſſing ſome *general notion*. If, therefore, theſe gentlemen are in the right, there is an

end of all belief in religion, morals, philoſophy, or ſcience of any kind. 2*dly*, There is no ſuch faculty of the human mind as *intellect*; the buſineſs of which, as we have ſhewn, is, to abſtract, and to conſider ſeparately, what is joined in nature, and in that way is preſented to the ſenſes. For, if we have no perception of things in any other way, it is evident, that we have no intellect, nor any thing beſides *ſenſe*, *memory*, and *imagination*. Theſe are all the powers of human nature, according to thoſe philoſophers; and theſe the brutes poſſeſs as well as we. So that this philoſophy, at the ſame time that it deſtroys all ſcience and certainty of every kind, degrades us to a level with the brute, by ſtripping us of that intellect which, by the antient philoſophers, was thought to be the diſtinguiſhing characteriſtic of human nature.

As this philoſophy leads to ſuch alarming conſequences, and is entirely ſubverſive of the theory which I have endeavoured to eſtabliſh, that the mind operates by itſelf, without the aſſiſtance of *ſenſe*, and, conſequently, deſtroys altogether the diſtinction that I have been at ſo much pains to eſtabliſh betwixt *perceptions of ſenſe* and *ideas*, I

muſt ſtop to conſider it a little more particularly. And, firſt, I would aſk theſe gentlemen, whether their propoſition be general, that no ſuch ideas as I ſuppoſe, exiſt at all in any mind or intelligence? or, do they only maintain, that they exiſt not in the human mind? The firſt of theſe propoſitions, I am perſuaded Dr Berkeley at leaſt did not mean to aſſert, tho' he has expreſſed himſelf in much too general terms: For he certainly believed that there exiſts a *ſupreme mind*; and, if ſo, he could not believe that this mind perceived by organs of ſenſe, and had no other perceptions.

But, without entering into ſuch high metaphyſical diſquiſitions, let us confine ourſelves to man, and inquire, whether in his mind there are any ſuch ideas. Now this appears to me to be truly a queſtion of fact, Whether does man actually divide, abſtract, and generaliſe, in the manner I have deſcribed? or does he conſider things in no other way than as they are preſented to him by the ſenſes? If therefore it be a queſtion of fact, every man's conſciouſneſs of what paſſes in his own mind muſt determine it. Now I aſk any man of ſcience, (for I admit it is only ſuch that form an idea perfectly),

Whether he cannot ſeparate or abſtract any particular property of any ſubject from its other properties, and make *that* property the object of the mind's contemplation by itſelf? whether he cannot conceive that quality as exiſting in many other ſubjects? and, laſtly, whether he cannot conſider *that* which thoſe ſeveral ſubjects have in common, laying aſide the conſideration of what may belong to each of them in particular? I aſk a geometer, *e. g.* Whether he cannot ſeparate that property of a figure, of being bounded by three lines, from any other property belonging to the figure, and conſider that property by itſelf? whether he cannot perceive that ſuch a property belongs to many other figures? and whether he cannot conſider this common property by itſelf, without taking into his conſideration the particular properties of each figure? Whether he cannot reaſon upon this common nature of a triangle, without conſidering any other quality which may belong to it? and whether it would not be the greateſt defect in a geometer, and ſuch as would render him utterly incapable ever to attain to any the leaſt degree of excellence in the ſcience, if he could not conceive and argue about a triangle

in general, without imbarraſſing his thoughts, by conſidering whether it was of wood or of metal, whether it was white or black, whether iſoſceles or ſcalenum?

There is another ſcience ſtill more abſtract than geometry, I mean arithmetic. For, as Ariſtotle has obſerved, points, lines, and figures have *poſition*; whereas number has none, but is one of the moſt general affections of being, whereby things are abſtracted from all their accidents, and all the qualities that difference them one from another, even from the circumſtances of *time* and *place*, which belong to all ſublunary things: And, therefore, numbers are moſt properly uſed by the Pythagoreans as ſymbols of things immaterial and eternal. Now, I aſk not only the man who underſtands the ſcience of numbers, but every ſchool-boy, who learns the common rules of arithmetic, whether, when he adds or ſubtracts, divides or multiplies, he thinks of ſo many men, horſes, or oxen? whether, in ſhort, his ſenſe or imagination has any thing to do in theſe arithmetical operations? and whether, on the contrary, it is not this moſt abſtract idea of number upon which he operates? And, as to men who underſtand the ſcience, it is ab-

ſurd to ſuppoſe, that, when they demonſtrate thoſe operations which vulgar men perform without knowing the reaſon of them; or, when they treat of the higher parts of this ſcience, ſuch as the doctrine of ratios and proportions, they ever think of any particular beings, to which the numbers are to be applied?

But, further, take a man who has learned neither geometry nor arithmetic, nor any ſcience whatever, and aſk him, Whether he cannot obſerve, ſpeak, and reaſon about the length of the room where he ſits, without taking into his conſideration its breadth or height, or what the finiſhing is, whether wainſcot or plaiſter? whether he cannot obſerve the ſize or figure of any animal or vegetable, without conſidering its other qualities?

Further, there are words in every language of art, called by grammarians *abſtract nouns*, which denote qualities abſtracted from the ſubſtances in which they are by nature neceſſarily inherent; this therefore may be ſaid to be a *violent* abſtraction; yet I aſk any common man, when he uſes the terms *blackneſs*, *whiteneſs*, *hardneſs*, or *ſoftneſs*, &c.

does he think of any particular ſubſtances to which theſe qualities are to be applied? If theſe, and ſuch like queſtions muſt be anſwered in the negative, as I think they muſt be, then it is decided by common obſervation and experience, that the human mind muſt at leaſt have the faculty of *abſtraction;* and that it is not ſo much under the dominion of ſenſe, that it muſt neceſſarily contemplate every object as preſented to it by the ſenſe, but can exert a power ſuperior to ſenſe, by ſeparating and dividing thoſe things which ſenſe preſents only in the lump.

The latter writer I have mentioned, admits the fact to be as I have ſtated it; and acknowledges, that the mind, in contemplating any individual object of ſenſe, can lay aſide the conſideration of the qualities peculiar to that object, and conſider only thoſe which it has in common with others of the ſame kind: And to theſe common qualities, ſo conſidered by the mind, we affix, ſays he, a name, which he admits to be a general term for all things of that kind, and to ſtand for them, in ſpeaking and writing; as, *e. g.* I ſee a three-ſided figure upon the paper, and this is an object which I perceive by my

ſenſe of ſight. Now, ſays he, I can lay aſide the conſideration of the white paper, the black lines, and I can alſo throw out of my view, whether it be a great or ſmall figure, right-angled, acute or obtuſe angled, and can conſider only its quality of being a plain figure, bounded by three ſtraight lines, to which I give the name of *triangle*; and this is a general term, applicable to all plain figures bounded by three right lines, without any other additional circumſtance.

Now, I ſhould deſire to know, whether the idea deſcribed by this writer is not preciſely what other philoſophers call an *abſtract* idea? *2dly*, I would aſk this gentleman, by what faculty of the mind this diſcrimination of the qualities of a triangle is performed, ſo that ſome of them are made the objects of the mind's contemplation, while others of them are ſet out of its ſight? He will not ſurely ſay it is *ſenſe*; becauſe *ſenſe* diſcriminates nothing, but without diſtinction perceives every quality of an object that is preſented to it, not conſidering whether it be common to the kind, or peculiar to the individual. Neither is it *imagination*; which is nothing elſe but a weaker ſenſation. It is evident, therefore, that it muſt be ſome faculty different from either

of theſe two, and this faculty is what I call *intellect*; unleſs it could be ſhewn, that there is any faculty of the human mind by which it perceives or knows any thing, other than ſenſe, imagination, and intellect.

It is ſaid by this writer, That the triangle upon the paper is truly the triangle which is perceived by the mind, but it is conſidered as *repreſenting* all other triangles. But this appears to me to be playing with words, and ſpeaking in figure and metaphor, not with philoſophical propriety and exactneſs. For what is meant by the word *repreſenting*? If it ſignifies, that the triangle upon the paper ſtands for a ſign of the idea of triangle, in the ſame manner that the word *triangle* does in ſpeaking, it is admitted. If, on the other hand, it is meant, that the triangle upon the paper is the exact image of the triangle in the mind, it is denied. For how can a triangle, that muſt of neceſſity be either right-angled, acute or obtuſe-angled, repreſent in that ſenſe a triangle which this writer allows to be conſidered by the mind without any of thoſe qualities?

The diagrams, however, uſed by geometers in demonſtrating their propoſitions, may

poſſibly have led thoſe gentlemen into ſo groſs an error. But they ought to have conſidered, that ſuch diagrams are no other than *ſigns* of ideas, and that it is the weakneſs of our intellect which obliges us to take that aſſiſtance from ſenſe. And accordingly we ſee, that men who are far advanced in the ſcience, can go through long demonſtrations without ſuch aſſiſtance; and though we do not poſſeſs, we may at leaſt conceive, ſuch a degree of intellect, as to have no need of ſuch material ſigns or ſymbols, but be able to converſe with the pure intellectual forms themſelves. But, even in our preſent ſtate, to argue, that, becauſe we uſe ſigns of ideas, therefore we have no ideas, is the ſame thing as if one ſhould argue, that, becauſe we uſe another ſort of ſigns, namely ſounds, therefore we have no conceptions but of ſounds. Now the fact is ſo far otherwiſe, that, when we hear or read any thing attentively, we do not at all attend to the ſounds, letters, or words, but only to the things ſignified by them.

The uſe, however, of theſe ſymbols of ideas has contributed not a little to confound the perceptions of ſenſe with ideas. It may not therefore be improper to examine how

the caſe ſtands with thoſe who have not the uſe of thoſe ſymbols, which are either viſible objects, ſuch as diagrams in geometry, or ſounds, ſuch as words. Now, let us take the inſtance of Mr Saunderſon the blind profeſſor of mathematics in the univerſity of Cambridge. He certainly conceived a triangle that was neither black nor white, nor of any other colour. If, therefore, he had the idea of a triangle, abſtracted from all colour, Why might he not conceive it abſtracted from every other ſenſible quality? It will, no doubt, be ſaid, that he muſt have conceived it as hard or ſoft, or of ſome other quality of which we have the perception by the ſenſe of feeling. But why not abſtract theſe qualities from it, as well as the qualities perceived by the ſight? The anſwer I know will be, that he had the ſenſe of feeling, though not that of ſight; and, if he had wanted both, he could have had no idea at all of a triangle. But this is ſaying no more than that our ſenſes, in this ſtate of our exiſtence, are the inlets to our knowledge, and that they furniſh the materials, out of which our ideas and all our knowledge is made. But as this inſtance of the blind geometer ſhews, that there is no difficulty in conceiving our ideas

abſtracted from one kind of ſenſations; ſo there can be no difficulty in conceiving them abſtracted from any other, or from all, if we can exalt our thoughts to the conception of beings which are not connected with matter, nor have any need of organs of ſenſe to bring in to them the materials of knowledge.

Again, let us conſider the caſe of deaf and dumb perſons, who cannot uſe that ſymbol of ideas we call words. They do not, therefore, think, as we commonly do, in words, but in what appears to me a better manner; for they are converſant with the ideas themſelves. This I was told by one of thoſe perſons, a very ingenious young gentleman, and who is a man of ſcience, having learned both arithmetic and the elements of geometry *. As his ideas, therefore, were cleared of the incumbrance of words, I was curious to know, whether they were not alſo unembarraſſed with other

* His name is *Shirreff*. He is by profeſſion a painter, and was taught to articulate by Mr Bairdwood, a man who makes a buſineſs of teaching deaf perſons to ſpeak, and of whom I ſhall have occaſion to make mention hereafter. Though, therefore, he have the uſe of words, yet, when I aſked him the queſtion, whether, in thinking, he annexed any words to his ideas? he readily anſwered, that he did not. As to ſounds, it was impoſſible he ſhould. It was, therefore, only the figures of the words in writing or printing, or the motion of the organs in articulating them, that he could annex to his ideas. But even theſe he did not annex. He underſtands and writes Engliſh very well, both in verſe and proſe.

peceptions of ſenſe, and aſked him particularly, whether he did not aſcribe ſome colour, ſuch as black or white, to his notion of a triangle, a thing not unlikely, as he was by profeſſion a painter, and conſequently much converſant in colours? He anſwered readily and explicitly, that his idea of a triangle had no colour. And when I aſked him whether, in his arithmetical operations, he applied the numbers to particular things? he ſaid, he did not. This deciſion of a man who had never thought upon the ſubject, and conſequently had no prejudice in favour of either ſide of the queſtion, I conſider as the voice of nature atteſting a fact, which he muſt have known as well as the greateſt philoſopher.

The arguments uſed by thoſe philoſophers who deny abſtraction, tend chiefly to prove, that ideas have no *real exiſtence*, and that they cannot be apprehended either by ſenſe or imagination: For who can perceive by the ſenſe, or figure in his imagination, a triangle, *e. g.* that is neither equilateral, iſoſceles, nor ſcalenum? But this is arguing againſt the ideas of Plato, not thoſe of Ariſtotle. And, in this way, the antient philoſophers, and particularly Sextus Emipiri-

cus *, the great defender of the Sceptic philoſophy, has argued againſt *abſtract ideas*, not denying their exiſtence *in the human mind*, but maintaining, that it was impoſſible they could really exiſt *in nature*. And indeed, if theſe philoſophers had entered a little more into that antient controverſy, and known perfectly the difference betwixt thoſe two kinds of ideas, they never would have ſuppoſed, that the ideas of Ariſtotle, which are the operation of mind alone, could exiſt any where elſe but in the mind, or be perceived by the ſenſe, or figured by the imagination, any more than mind itſelf. And ſo much for this ſtrange opinion concerning ideas, which appears to me to be entirely new, and unſupported by any authority, antient or modern, and as repugnant to ſound philoſophy as to common underſtanding. I

* This writer is of later times, having lived, as I conjecture, in the age of the Antonines; but there are very few writers of the beſt times that exceed him in purity or elegance of ſtyle: And I would adviſe all our ſceptical writers to ſtudy him diligently, not only for the improvement of their ſtyle, if they happen to underſtand the original, (or, if they do not, there is a very good Latin tranſlation of him), but of their matter; for there is as great copiouſneſs of argument in him as in any writer I know. I would alſo adviſe ſuch of them as write againſt the Chriſtian religion, to ſtudy Julian the Emperor's work of that kind, preſerved to us by one of the fathers of the church, Cyrillus; who, in anſwering him, has done his antagoniſt the juſtice to give us his own words. They will there learn more plauſible arguments, and much more elegantly expreſſed, than any they have uſed.

will only add, that the philoſophy of Mr Locke appears to me to have led into this, as well as into other errors: For, from the way in which he talks of abſtract ideas, it would ſeem he did not believe that they exiſted even in the mind. He ſays of the abſtract idea of a triangle, 'That, in effect, 'it is ſomewhat imperfect that cannot exiſt, 'an idea wherein ſome parts of ſeveral dif-'ferent and inconſiſtent ideas are put toge-'ther *.' And accordingly Biſhop Berkeley avails himſelf of this authority from Mr Locke, in arguing againſt abſtract ideas †. Indeed, it is no wonder that a philoſopher, ſuch as Mr Locke, who derives every thing from ſenſe and matter, and ſeems to know nothing beyond theſe, ſhould not believe in the exiſtence of ideas that are altogether the work of mind, operating by itſelf, without the aſſiſtance of body.

Betwixt thoſe two opinions, ſo oppoſite, lies the opinion of the Peripatetic ſchool, which, it may be thought, I have explained at too great length; and, inſtead of a treatiſe upon language, have written a ſyſtem of the philoſophy of mind. But it ſhould be conſidered, that I have undertaken to give a phi-

* *Eſſay on the human underſtanding, book* 4. *ch.* 7. § 9.
† *Theory of Viſion, p.* 147.

loſophical account of the Origin and Progreſs of Language, which it would have been impoſſible for me to give, if I had not entered into the pholoſophy of mind and ideas; without the knowledge of which, the ſtudy of language is the moſt barren of all ſtudies, unworthy of a philoſopher or man of ſcience. But further, I hope this inquiry into the nature and origin of our ideas will facilitate the deciſion of the queſtion, of which I am to treat in the next chapter, namely, Whether ideas be the natural growth of the mind, or the fruit of acquired habit?

CHAP. X.

That Ideas are formed by the Mind, not naturally, but in conſequence of acquired Habit. —General Reflections upon the Subject.

I KNOW that the argument I am now to maintain will appear to many a very ungracious argument, and will probably draw upon me much cenſure. Are we then of the ſame nature, they will ſay, with the brute beaſts? And is there no difference between us and them, except what culture and

education makes? To which I anſwer, firſt, That I muſt be underſtood to ſpeak of the preſent nature of man, not of that more perfect ſtate, in which, I think, philoſophy *, as well as religion, aſſures us he formerly was. Secondly, I ſay, that, even in this our fallen ſtate, our nature bears evident marks of ſuperior dignity and excellence above that of the brute. This I think I have ſhewn in the account that I have given of the operations of the human mind, where I have endeavoured to mark the boundaries betwixt them and us; and I have very much blamed certain philoſophers, for ſtripping us of that prime faculty, which makes the chief diſtinction betwixt our nature and that of the brute, I mean *intellect*. But there is certain-

* This was the opinion of Plato, as appears from the Timaeus, p. 42. edit. Stephani; a doctrine which he learned in the Pythagorean ſchool. See Hierocles's commentary upon the aurea carmina of Pythagoras, ad v. 54. et ſeqq. See alſo Plotinus, Lib. 8. cap. 1. Ennead. 4. From all which paſſages it clearly appears to have been the doctrine of the Pythagorean ſchool, that man was once in a more perfect ſtate, from which he fell; and that he is in this life only by way of puniſhment and probation; and that his great buſineſs in this his preſent ſtate is, to endeavour to regain his former and better ſtate, το της προτερας και αριστης ειδος ἑξεως, to uſe Plato's expreſſion in the paſſage above quoted from the Timaeus. See alſo, what I have ſaid, in the note upon chap. 1. of book 1. concerning Plato's belief in the doctrine of the trinity, which is to be found in the writings of all the later Platonies above named, and particularly, in thoſe of Proclus. It is therefore impoſſible to deny, that this was a moſt chriſtian philoſophy, and, accordingly, it was the philoſophy of the fathers of the church,

ly no hereſy in maintaining, that man has, by his fall, loſt this faculty, as well as many others, ſo far at leaſt as to retain only the *capacity* of *acquiring* it: And, inſtead of being a degradation of human nature, it ſeems to be our chief praiſe, that, by our own ſagacity and induſtry, we have been able to improve ſo much the ſcanty ſtock that nature, in this our degenerate ſtate, has beſtowed upon us, and to proceed, at leaſt ſo far, towards regaining our former more perfect ſtate *; while the brutes remain in the ſtate in which nature has placed them, except in ſo far as their natural inſtinct is improved by the culture we beſtow upon them. It is enough, I think, for the honour of our ſpecies, that our *capacity* is allowed to be great-

* What *ſupernatural* aſſiſtance we may expect towards reſtoring us to our original ſtate, and how that aſſiſtance is to be obtained, is an inquiry that does not belong to philoſophy, but religion. I ſhall only add, that the antient philoſophers above quoted, were ſufficiently ſenſible of the neceſſity of ſuch aſſiſtance, and that philoſophy alone was not ſufficient. They therefore preſcribed a certain diet and courſe of life, together with certain *expiations*, *luſtrations*, and *initiations*, by which, they ſaid, the mind was exalted above this mortal ſtate, and brought nearer to divinity. Theſe were kept εν απορρητοις among the Pythagoreans, and their followers in later times, ſuch as Porphyry, Jamblichus, Proclus, and Hierocles, and made a new kind of philoſophy, religious and myſtical, which they called φιλοσοφια τελιστικη, or καθαρτικη, by which was effected, as they ſaid, what they called the λυσις ψυχης, or delivery of the ſoul from thraldom and bondage. See Hierocles's commentary upon the aurea carmina of Pythagoras, v. 67. See alſo Laertius, in vita Pythagorae, and Marinus's life of Proclus, *verſus finem*.

er, and that we have from nature a greater facility in forming *habits* and acquiring *faculties* that are not born with us. Further than this, I cannot, though I ſhould give offence, carry the ſuperiority of our nature above the brute, in our preſent ſtate; nor can I exactly determine how far the brute might be carried by culture and education. Only thus much I think I may ſay, that his progreſs would be much ſlower, for the reaſon juſt now mentioned; and, not having from nature the ſame capability, he could not, with any culture, go ſo far.—But to proceed in our argument.

From the ſketch I have given of the *ideal* world, it appears to be entirely different from the *natural*. For, in the *firſt* place, in the ideal world, there is nothing but *ſhadowy forms*, as thoſe would call them who believe that nothing really exiſts except what is *material;* whereas the *natural* conſiſts of ſubſtances, compounded of *matter and form*. *Secondly*, The *natural* world is a compoſition of infinite variety; of which it is true, in ſome ſenſe, what the antient philoſopher ſaid that I quoted above, that all things are mixed with all; not as in the chaos of the poets, without order or regularity,

Frigida ubi pugnant calidis, humentia ſiccis;
Mollia cum duris; ſine pondere habentia pondus;

but with the moſt perfect order and regularity, though with ſuch a mixture in the compoſition, that almoſt every thing participates of every thing, and the moſt diſtant extremes run into one another. In the *ideal* world it is juſt the reverſe: For every thing there is ſeparated and diſcriminated from every thing; and it is the great buſineſs of human intelligence, to untwiſt, as it were, this great web of nature, and ſhow every thread by itſelf. *Thirdly*, As the objects in this world are different from thoſe in the natural, ſo are the faculties by which we recognize thoſe objects. The natural world we perceive by our *ſenſes*, the ideal by our *intellect*; two faculties altogether different in their nature and manner of operation.

The laſt difference I ſhall obſerve is, that the natural world opens upon us at our birth, at leaſt in ſome degree, and our infancy and younger years are wholly employed in making diſcoveries in it; whereas it is evident, that the ideal world is not diſcloſed to us till a conſiderable time after our birth; for at firſt we are entirely immerſed in matter, and it is only through the medium of ſenſe and matter, as I have ſhewn, that we enter into this world of ideas *.

* There is another difference, which, though not immediately belonging to our ſubject, is well worth obſer-

When I ſay this, I would not have it believed to be my opinion, that, however we are connected with matter at the time of our

ving by the philoſopher; and it is this: That the ideal world, being entirely of our own creation, is, or ought to be, perfectly known to us, ſo that we ſhould be able to define or explain the eſſence of every thing in it; whereas, in the world made by God, we know not the eſſence or conſtituent principles of any thing; for I deny that we can give a perfect definition of any natural ſubſtance. Not to ſpeak of the *firſt matter* of the philoſophers, which by all of them is allowed to be undefineable and incomprehenſible, what do we know more of thoſe bodies with which we are ſurrounded, and are daily converſant, or even of our own bodies, with which we are ſo intimately connected, except certain qualities or properties? But what conſtitutes the eſſence of any particular body, or of body in general, no man can tell. The common definition of *body* is, that which hath three dimenſions. But this is telling us no more than that it is bounded in a certain way: And I aſk, *What* is it that is thus bounded? It is alſo defined to be, that which reſiſts, or fills place. But ſtill I aſk, *What* is it that has this quality of *reſiſtence*, or *filling place?* I have already obſerved, that *Euclid*, in his definitions, has very properly not meddled with *ſpace*, *extenſion*, *quantity*, or any other of thoſe *univerſals* which are the ſubject of the firſt philoſophy, He has alſo wiſely abſtained from making mention of *Σωμα*, or *body*, even when he defines a ſolid. For he tells us, that a ſolid is *that* which hath length, breadth, and thickneſs, without telling us *what* it is; though he no doubt knew that it was body, and nothing elſe. But the ſubject of his ſcience was not that undefineable thing we call *body*, but only the *boundaries* of body; which, being abſtracted from body, are treated of by the geometer. It is therefore no impeachment of the certainty of the ſcience, that *body*, which is what is contained within theſe boundaries, cannot be defined.

birth, there is any thing material, or congenial to matter, in the nature of our mind: For the reader, I hope, by what he has already ſeen of this work, will not believe that I am addicted to that *mad philoſophy* * which excludes *mind* altogether from the ſyſtem of nature, or, what is, if poſſible, ſtill more abſurd, ſuppoſes that our mind is the only mind in the univerſe. I have been taught a philoſophy very different, from which I have learned, that there is a *governing mind* in the univerſe, *immaterial*, *eternal*, and *unchangeable*; that our minds are of a nature congenial to this ſupreme mind; and that there is in us, even at the time of our birth, a portion of thoſe *celeſtial ſeeds*, of which the Latin poet, quitting poetical fiction, and aſſuming the philoſopher, divinely ſings,

Igneus eſt ollis vigor et COELESTIS ORIGO
Seminibus,—

But he very properly adds this exception,

——quantum non noxia corpora tardant,
Terrenique hebetant artus, moribundaque membra.

Now, theſe incumbrances are ſo great when we firſt come into the world, and the *particle of the divinity* within us, as the antients choſe to call it, is then ſo immerſed in matter, and *imbruted*, if I may ſo ſpeak, that it

* *Inſanientis* dum *ſapientiae*
Conſultus erro. Hor.

cannot exert that power of *ſelf-motion*, which is peculiar to its nature, but is altogether paſſive to material impulſes, either from external objects, or from its own habitation of clay; I mean, from appetites and feelings ariſing from the body.

This is the natural ſtate of man when he firſt appears upon this ſtage: And the queſtion is, How he undergoes ſo great a change, as to become, of a creature merely paſſive and ſenſitive, active and intelligent? By what means does he enter into this intellectual world, ſo different from the natural, and become, as it were, a new creature? Is it by nature merely that this metamorphoſis is brought about, as the worm is changed into a butterfly? or is it by habit which he acquires? Do not we at firſt learn to *think*, as we afterwards acquire *arts* and *ſciences?* and does not the mind, by ſlow degrees, and very feeble attempts in the beginning, at laſt diſengage itſelf from the entanglements of matter, and learn to exert its native power of intellect?

Before we proceed further in reaſoning upon this ſubject, let us try what is to be learned from fact and experience, beginning with the infants of our own ſpecies. That

they have at firſt no ideas, and but very imperfect ſenſations, is a matter of fact that cannot be denied; and it is as certain, that they acquire their ideas, not by nature, as they do their bodily faculties, but by inſtruction, and by converſing with elderly perſons. Now, ſuppoſe them deprived of this method of communication, how long may we ſuppoſe that their infancy of mind would laſt? I have been informed of an inſtance of a child, who was come to be betwixt eight and nine years of age, and had learned, not only to ſpeak, but to read, and, by conſequence, muſt have had ideas, however imperfect, when he loſt his hearing by the ſmall-pox, and continued deaf all his life after. At the age of five and twenty he was put under the care of Mr Braidwood, whom I mentioned before, and who profeſſes a moſt curious art, of which I ſhall have occaſion to make frequent mention afterwards, I mean the art of teaching the deaf to ſpeak. Mr Braidwood told me, that, as he had been much neglected after the loſs of his hearing, without the pains being beſtowed upon him that are commonly beſtowed upon deaf perſons, he found him, even at that advanced age, almoſt totally void of ideas, and was

obliged to teach him to think as well as to ſpeak. Yet this young man had been ſupplied with all the neceſſaries of life. But let us ſuppoſe that he had had all thoſe neceſſaries to furniſh for himſelf, can we believe, that, if he had been ſo employed, he ever would have learned to think, or have become a rational creature, even ſuppoſing that he had lived in company with ſuch as himſelf?

In order to form a right judgement of this matter, let us conſider the ſtate of ſavage and barbarous nations. Thoſe who have ſtudied the hiſtory of *man*, not of particular nations only, that is, have ſtudied hiſtory in the liberal and extenſive view of diſcovering the nature of *man* from fact and experience, know very well, that all nations, even the moſt poliſhed and civilized, of which we read in hiſtory, were originally barbarians; and that, as all the vegetables, ſuch as the vine and the olive, which are now cultivated and improved by art, and in like manner the brute animals that are tamed, were at firſt wild; ſo likewiſe man himſelf was originally a wild ſavage animal, till he was tamed, and, as I may ſay, *humanized*, by civility and arts. Whoever, therefore,

would trace human nature up to its ſource, muſt ſtudy very diligently the manners of barbarous nations, inſtead of forming theories of *man* from what he obſerves among civilized nations. Whether we can, in that way, by any diſcoveries hitherto made, trace man up to what I ſuppoſe his original ſtate to have been, may perhaps be doubted; but it is certain we can come very near it: For we are ſure, that there have been in the world, and are ſtill, herds of men (for they do not deſerve the name of nations) living in a ſtate almoſt entirely brutiſh, and indeed, in ſome reſpects, more wild than that of certain brutes, as they have neither government nor arts*. Some of them who are advanced ſo far as civil ſociety and language, have nevertheleſs ideas exceedingly imperfect: For, though they have general notions, without which there could be no language, they can hardly be ſaid to have abſtracted ideas, as ſhall be ſhewn when we come to ſpeak of the barbarous languages. From ſuch beginnings, however, men proceed to form diſtinct ideas; then they advance to arts and ſciences, and ſo on to refinement and politeneſs. Now,

* Of ſuch nations more will be ſaid in the ſequel.

wherever there is a progreſs, there muſt be a beginning; and the beginning in this caſe can be no other than the mere animal: For in tracing back the progreſs, where elſe can we ſtop? If we have diſcovered ſo many links of the chain, we are at liberty to ſuppoſe the reſt, and conclude, that the beginning of it muſt hold of that common nature which connects us with the reſt of the animal creation.

From ſavage men we are naturally led to conſider the condition of the brutes; betwixt whom and the ſavages there is ſuch a reſemblance, that there are many who will hardly admit of any difference; and even betwixt us and them at the time of our birth, and for ſome conſiderable time after, there is not, as I have already obſerved, any material difference. The mind of the brute (ſo I call the inward principle in him that governs his motions and actions) is inſeparably connected with his body, and bound in the chains of matter, in the ſame manner that we are when we firſt come into the world. And accordingly, in the firſt operations of our mind, we ſee the very ſame proceſs: For, they have the ſame perceptions of ſenſe that we have; they preſerve

thoſe perceptions in their memory or imagination; and they have alſo, as well as we, a notion of *ſameneſs*, *likeneſs*, or *diverſity*, in the objects of ſenſe; and they recognize the *ſpecies* in the *individual*, as readily as our children do. Does not this plainly indicate, that there is no *natural* difference betwixt our minds and theirs, and that the ſuperiority we have over them is *adventitious*, and from *acquired habit?* How far the brute might go in that way, we have no ſufficient experience to determine with any certainty. If we can believe ſome ſtories told of them, and by philoſophers too, we cannot deny their capacity of acquiring the habit, not only of forming ſome general notions, which may be called ideas, but of comparing them together; that is, of reaſoning. The ſtory told by Mr Locke, of the Brazil parrot belonging to Prince Maurice of Naſſau, is well known. And Porphyry, the greateſt philoſopher, as well as beſt writer of his age, relates, that crows and magpyes, and parrots, (and another bird that he calls ἰσμενὶς), were taught, in his time, not only to imitate human ſpeech, but to attend to what was told them, and to remember it; and many of them, ſays he, have learned to in-

form againſt thoſe whom they ſaw doing any miſchief in the houſe. And he himſelf, he ſays, tamed a partridge that he found ſome where about Carthage, to ſuch a degree, that it not only played and fondled with him, but anſwered him when he ſpoke to it, in a voice different from that in which the partridges call one another; but was ſo well bred, that it never made this noiſe but when it was ſpoken to*. And in this work he maintains, that all animals who have ſenſe and memory are capable of reaſon: And this, he ſays, is not only his opinion, but that of the Pythagoreans †; the greateſt philoſophers, in my opinion, that ever exiſted, next to the maſters of their maſter, I mean the Egyptian prieſts. And he adds, that, beſides the Pythagoreans, Plato, Ariſtotle, Empedocles, and Democritus, were of the ſame opinion ‡. One thing cannot be denied, that their natures may be very much improved by uſe and inſtruction, by which they may be made to do things that are really wonderful, and far exceeding their natural power of inſtinct. There is a man in England at preſent, who has practiſed

* *Porphyr. De Abſtin. lib.* 3. *cap.* 4. † *Ibid. cap.* 1.
‡ *Porphyr. De Abſtin. lib.* 3. *cap.* 6. *in fine.*

more upon them, and with greater ſucceſs, than I believe any body living; and he ſays, as I am informed, that, if they lived long enough, and pains ſufficient were taken upon them, it is impoſſible to ſay to what lengths ſome of them might be carried; for there is a great difference among them, as well as us, in docility and natural capacity.

But allowing, that, in theſe two reſpects, we are ſuperior to all the brute creation, and that we can go farther than the brute with any culture can go, (which I believe to be the caſe), this is ſaying no more than what I have already ſaid, that we have by nature greater capabilities than they, and a greater facility of forming and improving habits; but I deny that there is any other difference betwixt us and them. We are for a time, like them, immerſed in matter,

——*incluſi tenebris et carcere cæco.*

VIRG. *Æn.* 6.

Like them we acquire faculties, and improve our nature by uſe and inſtruction. Where then ſhould the difference be, but where I have placed it? The maturity of age, we ſee, makes no ſuch alteration upon their mind, as to take it out of the natural ſtate: It does no more than give greater ſtrength

to their bodies, and the perfect uſe of their ſenſes; and perhaps by uſe and experience it may improve their inſtinct. What reaſons, or what facts, can induce us to believe, that it ſhould have any other effect upon us, ſo that, when we come to a certain time of life, we ſhould inſtantly burſt our priſon of fleſh and blood, and be transformed in a moment into rational creatures, without any uſe or inſtruction, or previous habit acquired? It is certainly much more probable, and more agreeable to the analogy of nature, and the progreſs which we obſerve in our ſpecies, from a ſtate little better than that of the vegetable, to ſuppoſe, that we acquire ideas, as we do the arts and ſciences, that are founded upon them; and that, as Nature has not given us the one, ſo ſhe has not given us the other; and for the ſame reaſon, namely, that we have the capacity of acquiring both: For Nature is always frugal in her gifts; nor is ſhe in any other inſtance ſo profuſe, as to beſtow upon one and the ſame animal, both the capacity of acquiring any faculty, and the actual poſſeſſion of that faculty.

CHAP. XI.

Continuation of the Subject.—Ideas of Reflection not from Nature.

IN order to examine this queſtion more cloſely, we muſt go back to the diviſion that I have made of ideas, into thoſe of *external objects*, and thoſe of the *operations* of our own *mind*, or, as Mr Locke calls them, *ideas of reflection*. In forming the ideas of either kind, we may be ſaid to ſtudy and inveſtigate the nature of things; for we diſcover, in things of which we form the idea, that *common nature* which binds them together, and conſtitutes the genus or ſpecies under which we recognize them. By the ideas, therefore, formed from the perceptions of ſenſe, we inveſtigate the nature of external objects; by ideas of reflection, we ſtudy ourſelves, and diſcover the nature of our mind, and its operations. The queſtion then is, Whether thoſe reflex acts of the mind, by which this diſcovery is made, are the mere operation of nature? or, Whether

this faculty of reflection is not acquired by uſe and exerciſe, like other faculties of which we are in poſſeſſion.

In order to decide this queſtion, we muſt conſider the ſtate of ſavages; who, as I have obſerved, are ſo much nearer the natural ſtate of man than we, that it is from them only that we can form any idea of the *original* nature of man: And I will venture to affirm, that any man who attempts to form a ſyſtem of *human nature* from what he obſerves among civilized nations only, will produce a ſyſtem, not of *nature*, but of *art*; and, inſtead of the *natural* man, the workmanſhip of *God*, will exhibit an *artificial* creature of *human* inſtitution *. Now, though we ſhould ſuppoſe, that the mere ſavages, employed altogether either in gratify-

* See *Monſ. Rouſſeau*, in his *Treatiſe on the inequality of Men*, where he ridicules the folly of thoſe who think they underſtand human nature, becauſe they know the character and manners of their own nation, and perhaps ſome of the neighbouring nations; and very wiſely tell us, that *man* is the ſame in all ages and all nations.

I am very happy to find, that my notions, both with reſpect to the original ſtate of human nature, and the origin of language, agree ſo perfectly with the notions of an author of ſo much genius, and original thought, as well as learning.

ing their natural appetites, or procuring the means of ſuch gratification; wanting that leiſure, and that aſſiſtance to knowledge, which civil ſociety affords to ſpeculative men; without curioſity alſo, or any deſire of knowledge, which is known to be the character of all ſavages, would nevertheleſs apply themſelves to the ſtudy of things without them: Is it poſſible to ſuppoſe, that they would turn their eyes inward, and carry their philoſophy ſo far as to ſtudy their own natures? If we can ſuppoſe them to do this by nature merely, we may likewiſe ſuppoſe that they will, in the ſame way, invent all arts and ſciences; for ideas are the foundation of all arts and ſciences, which cannot exiſt without definitions; and theſe, as we have ſhewn, are nothing elſe but perfect ideas of the things defined, which neceſſarily muſt be preceded in order of time by ideas leſs perfect: And particularly of this moſt uſeful of all ſciences, the ſcience of man, the ground-work are the ideas of reflection, of which we are now ſpeaking.

Not only is ſuch a ſuppoſition altogether abſurd in *theory*, but, in *fact*, it appears, as much as ſuch a fact can be known, that ſavages have no ſuch ideas. For even ſuch

of them as have formed themſelves into ſociety, and have got the uſe of language and of other arts, have hardly any words to expreſs the operations of mind. And in all languages, even thoſe the moſt cultivated, the words of that kind are metaphors, borrowed from the objects of ſenſe *. Now, as it is by language that we trace, with the greateſt certainty, the progreſs of the human mind, it is evident, that ideas of reflection muſt have come only in proceſs of time, and after ideas of external things were not only formed, but had got a name. We muſt therefore conſider this kind of ideas, not as the firſt ſtep of the progreſs of the human mind towards ſcience and philoſophy; ſo that, if we are at liberty to ſuppoſe it to be the work of nature, we cannot ſtop, but muſt likewiſe ſuppoſe every other ſtep, and the arts and ſciences themſelves, to be the work of nature, and nothing at all to be produced by acquired habit.

It may be objected, That *conſciouſneſs* is held by all philoſophers to be eſſential to human nature; ſo that, if a man is not conſcious of what he does, he does not deſerve the

* This, I think, is an obſervation of Mr Locke.

appellation of a human creature. Now, if a man knows that he *thinks*, *deliberates*, *chuſes*, &c. he muſt neceſſarily have the idea of *thinking*, *deliberation*, &c.; and theſe are ideas of reflection.

In anſwer to this objection, I find it will be neceſſary to explain the nature of conſciouſneſs at ſome length, and in a manner different from that in which it hitherto has been treated by our philoſophers.

CHAP. XII.

Of the Nature of Conſciouſneſs.—That it is the ſame with Reflection, and belongs to the intellectual Nature—Cannot, therefore, have place in a mere Savage.

MR Locke has ſaid, that "Conſciouſneſs is inſeparable from thinking, and eſſential to it, it being impoſſible for any one to perceive, without perceiving that he does perceive. When we ſee, hear, ſmell, taſte, feel, meditate, or will a-

"ny thing, we know that we do ſo *." And a later philoſopher † has maintained, that every ſentiment, and every perception of every kind, is neceſſarily accompanied with conſciouſneſs. Now, as there can be no conſciouſneſs without a reflex act of the mind upon itſelf, if thoſe philoſophers are in the right, it will follow of conſequence, that *reflection* is as early as any perception, even the perceptions of ſenſe; and therefore is from nature, and part of our original conſtitution. If this be good philoſophy, the brutes, having perceptions of ſenſe, are conſcious of what they do as well as we, a conſequence which, I believe, few perſons would be willing to admit. The argument, therefore, appears to me to prove too much. But, as this is a method of confutation, not very convincing, I will further endeavour to ſhew, that it has no foundation in the nature of conſciouſneſs, when thoroughly inveſtigated, and an exact definition given of it; which I think hitherto has not been done.

The object of conſciouſneſs is underſtood

* Eſſay on the Human Underſtanding, *book* 2. *chap.* 27. § 9.

† Mr de Maupertuis.—Letter 5.

by all to be our own actions and operations, and chiefly what paſſes in our minds. Now, we are not conſcious of the future, but only of the paſt. It is, therefore, evident that conſciouſneſs cannot be without memory, in which thoſe paſt actions muſt be preſerved.

But, 2*do*, it is not ſufficient that thoſe actions be lodged in the memory, but they muſt be called up, preſented to the mind, and made an object of its contemplation; otherwiſe we cannot be ſaid to be conſcious of any thing that we have done.

But, 3*tio*, neither is this all; for the mind muſt not be excited to this reminiſcence by any call from the body or its appetites. If, for example, a horſe is prompted by hunger to remember that he was fed in ſuch a field or ſuch a ſtable, and, upon that recollection, goes to the field or ſtable, we do not therefore ſay, that he is *conſcious* of having fed in ſuch a place.

4*to*, It remains, therefore, that we are only conſcious, when the mind of itſelf, and without any inſtigation from the body, or its appetites, but ſingly by virtue of that ſelf-moving power, which, as I have ſaid, is eſſential to mind, recollects any of its operations, and makes them the ſubject of

its contemplation; then, and then only, it can be properly ſaid to *reflect*.

From theſe obſervations, the definition of conſciouſneſs or reflection (for I make them to be ſynonymous terms) may be thus collected. *Conſciouſneſs is the recollection of our paſt thoughts and actions, by the voluntary act of the mind, not prompted by the body, or any of its appetites.* The meaning of which laſt words is, that, in this matter, the mind acts entirely without the body, by its own innate powers. So that, according to this definition, conſciouſneſs belongs only to the rational, or, to ſpeak more properly, the intellectual nature, which alone acts in that manner. When ſeveral recollections of this kind are compared together by the mind, and, from that compariſon, the mind gets the idea of what is common to them; then it is ſaid to have an *idea of reflection.*

If this be a true definition, then it follows, 1*mo*, That thoſe philoſophers are much miſtaken, who maintain that every perception of ſenſe is neceſſarily attended with conſciouſneſs, ſince it appears that there can be no conſciouſneſs, except when the mind acts without the aſſiſtance of the ſenſes.

2*do*, They are alſo miſtaken in believing that we cannot think without being conſci-

ous that we think: For we certainly have many thoughts and actions too which are forgotten, and never become the objects of our reflection; and nothing is more true than the common ſaying, That we often act without reflection, or knowing what we are doing, going on in a courſe of action, often for a conſiderable time, without any reflex act of the mind upon itſelf.

3*tio*, If we, who are accuſtomed to review our thoughts and actions, do often perceive and think in this manner, it is evident that the mere ſavage, whoſe mind is moved only by impulſes from the body, muſt always do ſo; even if we ſuppoſe him come ſo far as to form ideas of external things, it is evident that he *may* do this, and I think *muſt* do it at firſt, without any reflex act of his mind upon its own operations. Nay, further, ſuppoſe that he is come ſo far as to reflect upon his own operations; yet, till he has compared thoſe reflections together, and diſcerned what is common in them, he will have no idea of reflection.

And thus I think it is clearly proved, that ideas of reflection are not from nature.

CHAP. XIII.

That Ideas of external Objects are not from Nature.

SO far, therefore, we have proceeded in this argument, as to be able to affirm, with great certainty, that the *reflex act* of the mind upon itſelf, by which it is conſcious of its own operations, is not from *nature*. Here then is one claſs of ideas which muſt be produced by *acquired habit*; and this creates at leaſt a preſumption, that the other ſet of ideas is to be derived from the ſame ſource: For in that way the ſyſtem of the human mind will be much more uniform and conſiſtent, than if we were to divide the matter, and ſuppoſe that one claſs of ideas aroſe from nature, and the other from acquired habit. Both, according to my hypotheſis, are from the laſt-mentioned ſource; and nature has done no more than to furniſh the materials, I mean the perceptions of ſenſe; from which are derived, *mediately* or *immediately*, both claſſes of ideas.

But to come closer to the point,—it will be necessary, for the decision of this question, that the reader should recollect what we have said concerning the nature of the *intellectual* world, and the formation of those ideas which constitute it. We have seen how different in every respect it is from the *natural*; we have seen how we come by the knowledge of this last; and the question is, How the *intellectual* is disclosed to us? To suppose that there is any secret communication betwixt our minds and superior minds, by which it is *revealed* to us, is a kind of visionary and enthusiastical philosophy that is now altogether exploded. The fact truly is, that every man is the architect of his own ideas, and forms a little intellectual world in his own mind.

How artificial the operation is by which he does so, we have endeavoured to explain: And indeed it may in some sense be said to be an *unnatural* operation, if we consider that every thing here below consists of *matter* and *form* joined together. It is from this *compound* we receive our first impressions; and it is with it only that, in our natural state, we are conversant. To separate,

therefore, matter from form, as we do in framing ideas, may be ſaid to be an *unnatural* operation, ſince it is *disjoining* what *nature* has *joined*. And it muſt appear ſtill more unnatural and artificial, if we further conſider how long we were accuſtomed to view this compound in its natural ſtate, before we began to make ſo violent an abſtraction. This muſt make the operation at firſt moſt painful and laborious. It appears indeed eaſy to us, who are accuſtomed to it, by inſenſible degrees, from our early years, and aſſiſted by inſtruction and converſation with thoſe who have already formed the habit. But the philoſopher, who can carry himſelf back to the firſt ages of the world, muſt be convinced, that, to a ſavage, nothing could be more difficult, than an operation, by which he learns to think in a way ſo different from that to which he had been accuſtomed. Even the vulgar among us, tho' they have the advantage of being educated among thinking and ſpeaking men, make this abſtraction of the *matter* from the *form* very clumſily, and, if I may be allowed to uſe the expreſſion, leave always ſome of the

matter *sticking* to the form *. But how much more clumsily, and with how much more difficulty, must it be performed by the rude untaught savage?

Can we then suppose, that so *unnatural* an operation is the work of *nature?* or that what is performed with so much difficulty is a natural energy? The operations of nature, we see, are all easy, and they are performed as readily, and as well, at first as at last. Now this is certainly not true of the ideas of external things; for there is a progress in the formation of them, as shall be very clearly shewn from fact and observation, when we come to speak of the barbarous languages; and many abstractions

* The philosophers of the peripatetic school used a comparison which was very proper to explain the clear separation, that there ought to be in every idea, of the *form* from the *matter*. They said the mind was to be considered as taking off the form or image of the thing, in the same manner as the wax takes the impression of the seal; for the wax takes that impression, without any part of the matter of the seal. See *Ammon. Herm.* in his commentary upon Porphyry εις τας πεντε φωνας. Ὥσπερ ει κηρος λαβοι το εκτυπωμα του δακτυλιου, μη προσλαβων τι της ὑλης. The hint appears to have been taken from the *Theaetetus* of Plato, where he has the same comparison of ideas to the impressions of a seal upon wax.

which were not at all made at firſt, come afterwards to be made, till at laſt the idea ripens into that *perfect idea* which is the object of ſcience. Even in our preſent ſtate, we are daily forming new ideas, or making more perfect thoſe we have already formed, in proportion as we advance in knowledge. For every man that learns any art or ſcience, acquires ideas that he had not before. Thus a man, who ſtudies geometry, gets the ideas of figures which he had not before; ſuch as, *a rhombus*, *a rhomboid*, *a parallelopiped*, &c. And of the figures which he knew, he learns to diſtinguiſh ſpecies which before he did not attend to; ſuch as, *equilateral*, *iſoſceles*, and *ſcalene* triangles, and the like. And as we advance in this and other ſciences, we learn to correct our former ideas, and to acquire new and more perfect ones *. But,

* *Geometry* affords a very remarkable inſtance of this in the doctrine of *proportions*. After having learned that doctrine in the common way in which it is taught in our ſchools, if we ſtudy the fifth book of *Euclid*, we there learn an idea of proportion altogether new, and much more general and comprehenſive, including *incommenſurables* as well as *commenſurables*. This idea will appear to the young geometer ſo new and ſtrange, that he will find it difficult to apprehend it, and more difficult ſtill to make it familiar to him; and, before he perfectly underſtands it, and ſees the conſequences of it, he may be diſpoſed to re-

ſetting aſide philoſophy and ſcience, how many ideas has any common artiſt, that a man not ſkilled in the art never dreamed of, and which he has to learn, if he ſtudies the art? How then can we ſuppoſe that a thing in which there is ſuch progreſs, correction, and amendment, is a natural operation? or how can we doubt, that men acquired ideas at firſt, in the ſame manner as we acquire them now? only with much more labour and difficulty, and with much leſs accuracy, no doubt, as being unpractiſed in the art of thinking.

If, indeed, we were not ſo much creatures of artificial habit as it appears we are, it might be doubted, whether this faculty, as well as others, was not from nature. But the account I have given of human nature clearly ſhews, that it is almoſt wholly compoſed of artificial habits; and that even the perceptions of ſenſe, which one ſhould think were natural, if any thing belonging to us

ject it, as ſome modern ſmatterers in geometry have done. The ſame thing happens in other ſciences, and in every branch of philoſophy, till we come up to the *higheſt* philoſophy, or *ſcience of ſciences*, as it may be called; where we find ideas that many perſons are by nature incapable of forming, becauſe they require a power of abſtraction which few perſons are poſſeſſed of.

were so, are, for the greater part, the result of acquired habit. In *seeing*, for example, we *naturally* perceive no distance, and see the object inverted, double, and of no greater magnitude than the picture upon the bottom of our eye: So that we see objects as we now see them, only by habits of *judging* acquired from experience and observation; without which, that most useful sense would hardly be of any use at all *. What reason, then, can we have to doubt, that our ideas, which are so much farther removed from sense and matter, are not the work of nature; and that there is nothing from that source, except the bare impulses of external objects upon our organs of sense, conveyed to the mind in some way that we cannot explain?

If any doubt upon this subject could remain, it appears to be entirely removed, by considering what I have so much laboured to establish, namely, that the ideas even of external objects are altogether the operation

* This is a discovery of *modern* philosophy, which was unknown to *Aristotle*: For he reckons *seeing* among those things which we do entirely by *nature*, not by *custom*. Οὐ γὰρ ἐκ τῶν πολλάκις ἰδεῖν, ἢ πολλάκις ἀκοῦσαι, τὰς αἰσθήσεις ἐλαβόμεν· ἀλλ' ἀνάπαλιν, ἔχοντες ἐχρησάμεθα, οὐ χρησάμενοι ἔχομεν. *Eth. Nicom. lib.* 2 *cap.* 1. whereas it appears to be, at least for the greater part, *what we learn to do by doing*.

of mind. The body, therefore, and its faculties, are in this argument entirely out of the queſtion. So that we are not to inquire what faculties belong to the body, or at what time of life they are moſt perfect. Such inquiry might be very proper, if the queſtion were concerning the perceptions of ſenſe; but it has nothing to do with this queſtion concerning ideas; in forming which the mind ſingly is employed. The only queſtion, therefore, is, What influence the growth of the body has upon the mind? When the mind is to operate by the aſſiſtance of the body, it is evident that it will have a great deal, and that the mind will perform ſuch operations much better, when the body has come to maturity, and the man has got the perfect uſe of all his ſenſes. But how can the mind be thereby aſſiſted in thoſe operations which it performs by itſelf? It may be ſaid, that during the time in which the body is growing, the mind improves by experience and obſervation; and I am perſuaded it does ſo. It learns in that way, as we have ſeen, the uſe of the ſenſes; and if it is admitted, that it learns in the ſame way to form ideas, there is an end of the queſtion. But the hypotheſis I am combating is, that

men do not learn to *think* by degrees, and from practice and experience, as they learn to *ſee*; but that, all at once, when we come to a certain age, intellect breaks out, like an animal out of its ſhell; and the mind, though converſant before with material forms only, is inſtantly enabled to lay aſide the uſe of its inſtruments of perception, the ſenſes, to *diſembody*, if I may ſo ſpeak, the *form*, and to contemplate the idea pure and unmixed. This hypotheſis, when attentively conſidered, is really wild and phantaſtical, and altogether unſupported either by theory or fact.

The only way in which ideas could be conceived to be from nature, is to ſuppoſe, that they are formed by what we call *inſtinct*; which is an inward principle in animals, moving them to perform certain actions. But I ſay, 1*mo*, That the operations of inſtinct, being from nature, are *involuntary*; for they are not from the mind itſelf, but are certain determinations or diſpoſitions of the mind to act, not proceeding from choice or deliberation, but impreſſed upon it by the author of nature for certain purpoſes. Whereas the forming of ideas is a *voluntary* act of the mind; by which, from certain motives, which ſhall hereafter be ex-

plained, the mind is induced to ſtudy the nature of things, to obſerve what is common to *the many*, what peculiar to the *individual*; and in that way to form notions and ideas.

But, 2*do*, Let us conſider for what purpoſes inſtinct is given to animals. For this we are to ſeek among the brutes, in whom it is ſtill the governing principle, as I admit it was once in our ſpecies. Now, among them, inſtinct ſerves no other purpoſe than to direct to what is neceſſary for the preſervation of the individual, or the continuation of the ſpecies; nor is there the leaſt reaſon to believe that it ever ſerved any other purpoſe among us. Now we are ſure, from the example of the brutes, that ideas are not neceſſary for either of theſe purpoſes. Arts, indeed, may be neceſſary; and accordingly, ſome brutes have the practice of certain arts, ſuch as *weaving* and *building*. They have not, however, ideas, but are directed to the practice of thoſe arts by that ſuperior impulſe above-mentioned: And indeed, it is impoſſible to conceive how ideas by themſelves, without arts, can be either neceſſary or uſeful for the preſervation of the animal life in the individual, or the continuation

of it in the ſpecies. Inſtinct, therefore, would not have anſwered its end, if it had beſtowed upon us *ideas*, without giving us at the ſame time *arts*; which it is certain it has not done: For there is no dividing the matter, or ſtopping betwixt the two; but we muſt ſay, either that nature has given us both ideas and arts, or that ſhe has given us neither.

It may be thought by ſome, that we have from *inſtinct* a love for knowledge, and that this would be a ſufficient motive to excite the mind, when we come to maturity, to ſtudy the nature of things, and to form ideas. And in ſupport of this hypotheſis, great authorities from philoſophers might be quoted, to prove, that the deſire of knowledge is natural to man*.

But I anſwer, 1*mo*, That this is uſing the term *inſtinct* in a ſenſe very different from the common acceptation of it; and, if we are to uſe ſuch freedom with words, we may as well call by that name any motive directing us to any purſuit. But, 2*do*, The love

* Μανθανειν ου μονον τοις φιλοσοφοις ηδιστον, αλλα και τοις αλλοις ομοιως. *Ariſtot. Poet. cap.* 4. And he aſſigns this as one of the natural cauſes why *poetry* and the other *arts of imitation*, pleaſe ſo much.

of knowledge belongs to the rational nature alone; of which only thoſe philoſophers muſt be underſtood to ſpeak: For the mind, as ſoon as it comes to feel its own vigour, and to exert its power of contemplation, is delighted with the exerciſe of this its nobleſt faculty; and if it attains to any degree of perfection in ſuch exerciſe, is infinitely more delighted with it than with any thing elſe. But the queſtion here is, How our nature *becomes* rational, and how we firſt get that taſte of knowledge, of which we are afterwards ſo fond? Till that happens, we can have no deſire of it; for, according to the common ſaying, *Ignoti nulla cupido.* And accordingly we obſerve, that the moſt barbarous nations, that is, thoſe who are neareſt the original ſtate we ſpeak of, ſhew no deſire of knowledge at all; which is one, among other reaſons, that makes them paſs among us for animals quite ſtupid and inſenſible, and little better than idiots.

If then ideas are not from inſtinct, they cannot be from nature in any other way than as other natural operations are, ſuch as breathing and digeſtion. But this is too abſurd to be maintained. It remains, therefore, that they muſt be from what I call *acquired*

habit. Now this habit is acquired by frequently doing the thing. If in this practice we have the aſſiſtance of a maſter, or if, without being taught, we have any pattern that we can imitate, we learn much faſter. But, even without ſuch aſſiſtance, by practice merely, and by obſerving what is done wrong, and correcting it, and ſo becoming our own maſters, we learn at laſt to do the thing: and thus the habit is formed by ſimilar or homogeneous energies, as Mr Harris has expreſſed it, that is, by doing the thing, we learn to do it *. And in this way men have learned to build, and to weave, and to practiſe other arts; and, among other things, to form ideas.

If it be objected, That it is impoſſible to do any thing before we have learned to do it, and that therefore we cannot learn to do any thing by doing it; the anſwer is, That we muſt have from nature the faculty of doing ſomething of the kind, though very imperfectly; and upon that foundation going on, we learn at laſt to do the thing as it ſhould

* Ἃ γὰρ δεῖ μαθόντας ποιεῖν, ταῦτα ποιοῦντες μανθάνομεν, οἷον οἰκοδομοῦντες οἰκοδόμοι γίνονται, καὶ κιθαρίζοντες κιθαρισταί. *Ethic. Nicomach. lib.* 2. *cap.* 1.

be done *. Thus a man could never learn to build, if he had not from nature the faculty of laying a ſtone; nor to weave, if he could not ſtretch out and arrange threads; nor to ſpeak, if he had not organs for that purpoſe from nature, and could not move thoſe organs, and put them in certain poſitions. In like manner, we could not form ideas, if we had not ſenſe and memory; and, beſides theſe, the faculty of ſeparating things that are joined in nature, and of comparing two or more things together. This ſeparation, and this compariſon, will at firſt be very clumſily performed, like the rudiments and firſt beginnings of all arts. Things, for example, will not be ſufficiently ſeparated or ſifted, but taken together, as it were, in great lumps; and the compariſons will be inaccurately made; ſo that ſimilitudes will be obſerved which do not exiſt, and many will be overlooked that do exiſt. In this way, the ideas at firſt will be exceedingly imperfect, and hardly deſerving the name.

* This objection was made by the *Sophiſts* in the days of Ariſtotle, as appears from his *Metaphyſics*, *lib.* 9. *cap.* 8.; where it is anſwered very ſhortly, and indeed but in a word, according to the manner of Ariſtotle in his *Eſoteric works*; but I think in the ſame way that I have anſwered it.

But the practice being conſtantly continued, they will be improved by degrees, till they come to be good enough for the ordinary purpoſes of life, and at laſt ſo perfect, as to be fit for the objects of ſcience.

And thus, I think, I have proved, that the ideas of the objects of ſenſe, as well as thoſe of the operations of our own mind, are not from nature, but acquired; and if I ſhall be able to ſhew, from facts and examples, by what degrees they have been acquired, as I hope I ſhall in the ſequel, the evidence I think muſt be allowed to be complete; for then the propoſition will be proved, both *a priori* and *a poſteriori*; that is, from fact as well as from theory.

CHAP. XIV.

Concluſion of the Subject of Ideas.—General View of Human Nature, and the Rank it poſſeſſes in the Scale of Being,—compared with ſuperior Natures.

I Cannot conclude this ſubject, without taking a general view of human nature, according to the account that I have given of it; which, I am perſuaded, will be found agreeable to the general analogy of nature: For it ſeems to be a law of nature, that no ſpecies of thing is formed at once, but by ſteps and progreſſion from one ſtage to another. Thus naturaliſts obſerve ſeveral different appearances betwixt the *ſeed* and the *vegetable*, the *embryo* and the *animal*. The *principles* of *body in general*, are, *points*, *lines*, and *ſurfaces*, which are not *body* *; and of *number*,

* It is in this way that the antient *Sceptics* argued againſt the principles of *geometry*. What is a *point?* ſaid they: Is it *body?* or is it *ſpirit?* And if it be neither one nor t'other, it has no exiſtence at all. The anſwer is, That though it be not *body*, and much leſs *ſpirit*, it

the monad, and *duad*, which are not *numbers*; and, in general, the *elements* of things are different from the *things themſelves*. There is the ſame progreſs, according to my hypotheſis, in the formation of *man*, and the ſame diſtinction betwixt the *elements* of this ſpecies, and the *ſpecies* itſelf. The progreſs of his body I am not concerned with at preſent: But, with reſpect to the mind, the firſt obſervable ſtep in its progreſs is ſenſation, or perception by ſenſe; but, even before we arrive at that, there is a progreſs, though not commonly obſerved. For, as we have ſeen, *ſenſe* is very imperfect at firſt; and it is only in proceſs of time that this primary faculty, of all others the moſt natural, becomes complete. Next in order comes the faculty by which thoſe perceptions, otherwiſe fleeting and tranſitory, are retained in the mind; for I am perſuaded it is not ſo early as ſenſation, and therefore does not exiſt at all in new-born infants, nor perhaps for ſome conſiderable time after the birth. This retentive faculty is of two kinds; or perhaps only aſſumes two diffe-

is the *element* of body. See *Sextus Empiricus adverſus geomet.*

rent names, according to the different ways in which it retains the ſenſations: For, if they are there *painted*, (to uſe a metaphor of Plato *), it is called *fancy*, or *imagination*; but, if they are only *written*, that is, ſimply preſerved, without colour or ſhape, it is

* The paſſage is in the *Philebus*, *p.* 388. *Edit. Ficini.*

ΣΩ. Ἡ μνημη ταις αισθησεσι ξυμπιπλουσα εις ταυτον, κἀκεινα ἃ περι ταυτα ἐστι τα παθηματα, φαινεται μοι σχιδον οἱον γραφειν ἡμων εν ταις ψυχαις τοτε λογους, κ. τ. λ.——ΠΡΩ. Παυ μεν ουν δοκει μοι, και ἀποδεχομαι τα ῥηθεντα οὑτω. ΣΩ. Ἀποδεχου δη και ἑτερον δημιουργον ἡμων εν ταις ψυχαις εν τῳ τοτε χρονῳ γιγνομενον. ΠΡΩ. Τινα; ΣΩ. Ζωγραφον, ὁς μετα τον γραμματεα ταδε, των λεγομενων εικονας εν τῃ ψυχῃ τουτων γραφει. ΠΡΩ. Πως δη τουτον αυ και ποτε λεγομεν; ΣΩ. Ὁταν ἀπ' ὀψεως, ἢ τινος ἀλλης αισθησεως, τα τοτε δεξαζομενα και λεγομενα ἀπαγαγων τις, τας των δεξασθεντων και λεχθεντων εικονας εν αὑτῳ ὡς πως.

This is well, but ſhortly ſaid, and only by way of *metaphor* or *ſimilitude*; which is one great fault that Ariſtotle finds with his maſter. For, ſays he, he does not tell us *what* a thing *is*, but *what* it is *like*. But even Ariſtotle himſelf does not ſatisfy me entirely by what he has ſaid upon this ſubject, though he has taken a good deal of pains upon it in his books *De Anima et de Memoria*. The reader, if he likewiſe be not ſatisfied, may content himſelf with the following obſervations, till he ſhall find ſomething better.

Memory and imagination (conſidering them as different faculties) agree in this, that they are both ſubſequent to ſenſe, and prior to reaſon and intellect; 2dly, they both preſerve in the mind the perceptions brought into it by the ſenſes, which would be tranſitory and evaneſcent, if it were not for the aid of theſe two faculties. But they differ in the following particulars.

called *memory*. And thus ſenſation, memory, and imagination, together with certain natural appetites and deſires, complete the

1*mo*, Memory, as Ariſtotle has obſerved, always refers to what the mind formerly perceived or knew; whereas the imagination only preſents the object to the mind, but without any reference to the paſt, except it be accompanied with memory, which it is not always; for imagination ſo far reſembles ſenſe more than memory, that it repreſents the object as preſent, and affects the mind nearly in the ſame way as if it were preſent; and from thence is called, by ſome ancient philoſophers, a *weaker ſenſation*.

2*do*, The imagination preſerves in the mind the perceptions of ſenſe only; whereas the memory retains not only theſe, but alſo ideas, and theorems, or propoſitions.

3*tio*, The image of the object preſerved in the memory is not near ſo lively and ſtrong, as that which is preſented to the mind by the imagination: For we often remember things in general only; or, if we remember alſo the particular circumſtances, they do not affect us near ſo much as the original perception of them by the ſenſes; whereas imagination paints them, as I have ſaid, and exhibits them to the mind with all the colourings, and all the peculiarities with which they appear to the ſenſes, and with very near as much emotion as they at firſt produced. The conſequence of this is, that having ſeen any object of the agreeable or diſagreeable kind, if I have a good memory only, I can give a particular deſcription of it, which will be very well underſtood, but ſuch as will not much affect the hearer: But if I have the eye and imagination of a painter or a poet, I can deſcribe the object in ſo lively a manner, that it will produce in the hearer very nearly the ſame emotions that it produced in me when I firſt ſaw it.

animal. Then he acquires the *comparative* faculty, called by the antient philoſophers, the *rational* or *logical* faculty; by

4*to*, This lively painting of the imagination, and the emotions which it produces in the mind, of joy, grief, terror, or whatever other paſſion was excited by the object itſelf, have a very great effect upon the happineſs or miſery of our lives; ſo that the man poſſeſſed of ſuch an imagination, muſt neceſſarily be more happy or more miſerable than other men.

5*to*, The imagination has not only the power of retention, as well as memory, but it has a *creative* power, which is peculiar to it, and diſtinguiſhes it eſſentially both from ſenſe and memory: For ſenſe is only converſant with the preſent, memory with the paſt; whereas imagination, by the means of this faculty, is converſant with the future as well as the paſt, and paints to itſelf ſcenes that never did exiſt, and it is likely never will; for it may be ſaid to create even the materials of thoſe ſcenes, being ſuch as are not directly and immediately furniſhed by the ſenſe, but are formed upon the model of objects that have been preſented by the ſenſe, and are, as it were, imitations of them.

This is that great work of imagination, which is the foundation of all the *fine arts*, and ſtamps men truly *poets*, or *makers*. By this faculty we are enabled to exhibit ſcenes both of natural and human things, which, though they are far beyond real life and nature, are nevertheleſs *natural*; becauſe they are imitated from things that have really exiſted. I ſay, *imitated*; for if they are ſervilely copied, it is not poetry or painting, but hiſtory or portrait drawing. And it is for this reaſon that thoſe *fine arts* are very properly called *arts of imitation*.

As the imagination is often joined with memory, as we have already obſerved; ſo it is very frequently accompanied with *opinion*, particularly with reſpect to thoſe

which he compares the perceptions of ſenſe; being all the materials with which his mind is yet ſtocked. But this faculty he has in pictures of futurity which the imagination preſents to the mind; for we often believe that the things are really to happen. And this has likewiſe a great effect with reſpect to the happineſs or miſery of life: For, if the events which we ſuppoſe are to happen, are of the joyful and proſperous kind, we have all the pleaſures of hope, which makes a man of a warm lively imagination happier while it laſts, than the actual enjoyment would do. But what he hopes for may never happen; and then he ſuffers the pain of diſappointment; which, in ſome caſes, is ſo inſufferable, that men rather chuſe to go out of life than endure it: Or he may obtain the object of his hopes and wiſhes; but it may not, and in fact it very ſeldom does, anſwer his expectations; and then there is another diſappointment often more cruel than the firſt.—If, on the other hand, the events I believe will happen are of the unproſperous kind, the fear of them muſt make me very unhappy; and if they are ſtrongly painted on my imagination, and appear unavoidable, they make me as unhappy, perhaps more unhappy, than if they were actually preſent, and, by anticipation, reduce me to that ſtate of mind which is well known by the name of *deſpair*. If ſuch belief is taken up raſhly, and without ſufficient grounds, it is the effect of a melancholy and gloomy turn of mind; which ſometimes makes men miſerable in the greateſt ſeeming proſperity.

Further, we may ſuppoſe the picture of thoſe fairy ſcenes by the imagination ſo very lively, that, inſtead of believing the things *will happen*, we think they *have already happened*. Thus a man believes himſelf to be a king, or to be poſſeſſed of great wealth and power, who perhaps is a beggar; and he acts accordingly. This

common with ſeveral other animals; ſo that he is yet only a more perfect *animal*, but not *man*, except in *capacity*. Next, he proceeds to acquire *intellect*; the firſt exertion of which is the forming ſome *general notions*. Of theſe he frames what we call *opinion*: And in this ſtage of his progreſſion he is very properly called by a Greek author an *opinion-making animal* *. Then, and not till then, he is *actually* a *man*. The laſt ſtep, and which completes the proceſs, is the forming *perfect ideas*, by which he becomes a man of *intellect* and *ſcience*. And thus, out of *ſenſe*, *me-*

ſtate of the imagination is what we call *madneſs*. But if the perſon does not go ſo far as to fancy himſelf actually poſſeſſed of thoſe things he deſires, but only believes, upon very ſlight grounds, or no grounds at all, that he is to be poſſeſſed of them, ſuch a man, in common language, is called a *fool*. So that, according to this account, madneſs is a diſeaſe of the imagination; folly an error of the judgement.

To conclude this note, which has drawn out to too great a length, it thus appears that the mind operates in two very different ways upon the materials which ſenſe brings into it. For, either it abſtracts from them ideas, which ſerve for the materials of ſcience, when thoroughly purged and refined from matter; or it forms repreſentations and pictures of them, which, properly choſen, and well painted, make the ſubjects of the moſt delightful arts among men.

* Ζωον δοξαστικον. *Polyb. lib.* 6.

mory, imagination, reaſon, and opinion, is produced that beſt faculty of the human mind, and which, therefore, in the common courſe of nature, ought to come laſt, I mean *intellect*, of which the *diſcurſus* is what we call *ſcience*. And thus *man* is completed, and brought to the perfection of his nature.

This is *the ſcale of being*, riſing by proper gradations from mere *matter* and *ſenſe* to *intellect*, through the medium of *memory*, *imagination*, and *opinion*. Some animals appear to have only *ſenſe*, ſuch as muſcles, and other ſhell-fiſh. There are others that never attain even to *ſenſe* in any degree of perfection, but fill up the interval betwixt the *vegetable* and *animal*, participating ſomething of the nature of each, from which they have the name of *Zoöphytes*. Other animals, beſides *ſenſe*, have *memory* and *imagination*; and ſome perhaps only *one* of theſe two; but man, being *a little world*, as the antients called him, has in his frame a portion of every thing to be found in *nature*. He has in his body all the elements of which the *inanimate* world is compoſed; he has the growth and nutrition of the *vegetable*; and he has ſenſe, memory, and imagination, belonging to the *animal* life; and, laſt of all, he acquires

reaſon and intellect. Thus is man formed, not however at once, but by degrees, and in ſucceſſion: For he appears at firſt to be little more than a mere vegetable, hardly deſerving the name of a *Zoöphyte;* then he gets ſenſe, but ſenſe only, ſo that he is yet little better than a muſcle; then he becomes an animal of a more complete kind; then a rational creature; and finally a man of intellect and ſcience, which is the ſummit and completion of our nature.

From this point of view let us try if we can diſcern the difference betwixt us and higher intelligencies. *We* begin with *matter* and *material objects*, and through *particulars* and *individuals* inveſtigate *generals*. *They* (ſo far as we can conceive of their operations) proceed in a method directly oppoſite to this: For, beginning with *generals*, they through them recogniſe *particulars*. In this way we too proceed, after we have attained to intellect and ſcience; but with this difference, that thoſe more perfect minds ſee the particulars in the generals *intuitively*; whereas we, for the greater part, are obliged to *inveſtigate* them, and find them out by *circuit* and *collection*. If it were otherwiſe, and that in the *univerſals*

we could ſee at once the ſeveral *ſubordinate ſpecieſes*, and their ſeveral properties, connections, and dependencies, we ſhould then indeed be *divine* intelligences, and be ranked with beings of ſuperior order. But, if we cannot be *gods*, let us continue *men*, and not be degraded to *brutes*, by being ſtripped of that prerogative which chiefly diſtinguiſhes us from them, I mean *intellect*.

CHAP. XV.

That Articulation is not natural to Man.

WE are now to deſcend from thoſe high ſpeculations concerning ideas which conſtitute the *form* of language, to ſounds which are the *matter* of it. And though I may have failed in my endeavours to convince the reader, that the operation of abſtracting the perceptions of ſenſe, and forming of them generals and univerſals, (for as to ideas of reflection I think there can be

no doubt), is not performed by any natural inſtinct, but has ariſen, like the arts that are founded upon it, from experience and obſervation, and by uſe has been formed into habit; I cannot doubt but that I ſhall convince every one who will think it worth his while to read what follows, that articulation is altogether the work of art, at leaſt of a habit acquired by cuſtom and exerciſe, and that we are truly by nature the *mutum pecus* that Horace makes us to be. This I think I am able to prove, both from theory and facts. I will begin with the facts, which will ſerve to explain my theory.

It is a clear caſe, that we do not ſpeak in that ſtate which, of all others, beſt deſerves the appellation of *natural*, I mean when we are born, nor for a conſiderable time after; and even then we learn but ſlowly, and with a great deal of labour and difficulty. About the ſame time alſo we begin to form ideas. But the ſame anſwer, I know, is made to ſerve for both; namely, That our minds, as well as our bodily organs, are then weak, and therefore are unable to perform ſeveral of their natural functions; but, as ſoon as they become ſtrong and confirmed by age, then we both think and ſpeak. That this is not

true with reſpect to *thinking*, I have already endeavoured to ſhow; and, as to *ſpeaking*, I ſay, in the firſt place, that of all thoſe ſavages which have been caught in different parts of Europe *, not one had the uſe of ſpeech, though they had all the

* See an account of them in Rouſſeau's treatiſe *ſur l'inegalité des hommes*, note 3. and in Linnaeus's *Syſtema naturae*. The firſt of theſe ſavages was caught near Heſſe-Caſſel in 1344, and was taught to ſpeak. Another was found in the foreſts of Lithuania in the year 1694. He too was mute when he was found; and, whether he ever learned to ſpeak, does not appear. In 1719, two ſavages were found in the Pyrenaean mountains; and the Hanoverian ſavage was caught and brought to England in the reign of George I. All theſe, when they were firſt caught, were not only mute, that is, had no articulation, but appeared to be truly quadrupeds; and the firſt mentioned, our author ſays, was taught with much difficulty to walk upright. When we join to this a fact which Monſ. Rouſſeau likewiſe avers, that the children of the Hottentots and Caribbees walk ſo long upon their hands, that they are with much difficulty taught to walk upright, it would ſeem that we muſt add to man's other acquired habits his quality of *biped*, which has been generally thought an eſſential part of his original nature, and accordingly is made part of ſome definitions of him. But Ariſtotle knew better; for all that he has ſaid is, that by nature man is *more* a biped than any other animal,—μαλιστα γαρ καθ φυσιν εστι διπους. *De animalium inceſſu*, cap. 5. The meaning of which I take to be, that he has by nature a greater aptitude to acquire the habit of walking *on two* than any other animal. And Monſ. Rouſſeau's arguments in ſupport of his natural erectneſs appear to me to prove no more.

organs of pronunciation ſuch as we have them, and the underſtanding of a man, at leaſt as much as was poſſible, when it is conſidered, that their minds were not cultivated by any kind of converſation or intercourſe with their own ſpecies; nor had they come ſo far, according to my hypotheſis, as to form ideas, or think at all. One of theſe was caught in the woods of Hanover as late as the reign of George I. and, for any thing I know, is yet alive; at leaſt I am ſure he was ſo ſome years ago. He was a man in mind as well as body, as I have been informed by a perſon who lived for a conſiderable time in the neighbourhood of a farmer's houſe where he was kept, and had an opportunity of ſeeing him almoſt every day, not an idiot, as he has been repreſented by ſome who cannot make allowance for the difference that education makes upon mens minds; yet he was not only mute when firſt caught, but he never learned to ſpeak, though at the time the gentleman, from whom I have my information, ſaw him, he had been above thirty years in England.

Further, not only ſolitary ſavages, but a whole nation, if I may call them ſo, have been found without the uſe of ſpeech. This

is the caſe of the Orang Outangs that are found in the kingdom of Angola in Africa, and in ſeveral parts of Aſia. They are exactly of the human form; walking erect, not upon all-four, like the ſavages that have been found in Europe; they uſe ſticks for weapons; they live in ſociety; they make huts of branches of trees, and they carry off negroe girls, of whom they make ſlaves, and uſe them both for work and pleaſure. Theſe facts are related of them by Monſ. Buffon in his natural hiſtory. And I was further told, by a gentleman who had been in Angola, that there were ſome of them ſeven feet high, and that the negroes were extremely afraid of them; for, when they did any miſchief to the Orang Outangs, they were ſure to be heartily cudgelled when they were caught. But though, from the particulars above mentioned, it appears certain, that they are of our ſpecies, and though they have made ſome progreſs in the arts of life, they have not advanced ſo far as to invent a language; and accordingly none of them that have been brought to Europe could ſpeak, and, what ſeems ſtrange, never learned to ſpeak. I myſelf ſaw at Paris one of them, whoſe ſkin was ſtuffed, ſtanding upon a ſhelf in the

King's cabinet of natural curioſities. He had exactly the ſhape and features of a man; and particularly, I was informed, that he had organs of pronunciation as perfect as we have. He lived ſeveral years at Verſailles, and died by drinking ſpirits. He had as much of the underſtanding of a man as could be expected from his education, and performed many little offices to the lady with whom he lived; but never learned to ſpeak. I was well informed too, of one of them belonging to a French gentleman in India, who uſed to go to market for him, but was likewiſe mute *.

Further, to ſhew the difficulty of pronunciation, the fact is moſt certain, that thoſe who have been accuſtomed to ſpeak all their lives, cannot, without the greateſt labour and

* *Monſ. Rouſſeau*, in his work above quoted, *note* 10. has collected the ſeveral accounts given of this animal by travellers, and ſeems to agree with me in opinion that he belongs to our ſpecies, rejecting with great contempt the notion of thoſe who think that ſpeech is natural to man. Now, if we get over that prejudice, and do not inſiſt, that other arts of life, which the Orang Outangs want, are likewiſe natural to man, it is impoſſible we can refuſe them the appellation of *men*. See what I have further ſaid upon the ſubject of the Orang Outang, ch. 4. book 2.

pains, learn to pronounce ſounds that they have not been accuſtomed to. Thus a Frenchman that has not been taught Engliſh early in his youth, can hardly ever learn to pronounce the aſpirated *t*, that is, the *th*; and an Engliſhman cannot pronounce the aſpirated K, or *x* of the Greeks, which we in Scotland pronounce with the greateſt eaſe. And the Baron Hontan, who travelled ſo much in North America, tells us, that he ſpent four days to no purpoſe in trying to teach a Huron to pronounce the labial conſonants *b*, *p*, and *m*, which we reckon ſo eaſy, and which are among the firſt conſonants that our children pronounce; the reaſon of which was, that the Hurons have no ſuch conſonants in their language.

But what puts the matter out of all doubt, in my apprehenſion, is the caſe of deaf perſons among us. And their caſe deſerves to be the more attentively conſidered, that they are nearly in the condition in which we ſuppoſe men to have been in the natural ſtate. For, like them, they have the organs of pronunciation; and, like them too, they have inarticulate cries, by which they expreſs their wants and deſires. They have likewiſe, by conſtant intercourſe with men who

have the uſe of reaſon, and who converſe with them in their way, acquired the habit of forming ideas; which we muſt alſo ſuppoſe the ſavage to have acquired, tho' with infinitely more labour, before he could have a language to expreſs them. They want therefore nothing in order to ſpeak, but inſtruction or example, which the ſavages who invented the firſt languages likewiſe wanted. In this ſituation, do they invent a language when they come to perfect age, as it is ſuppoſed we all ſhould do, if we had not learnt one in our infancy? or do they ever come to ſpeak during their whole lives? The fact moſt certainly is, that they never do; but continue to communicate their thoughts by looks and geſtures, which we call *ſigns*, unleſs they be taught to articulate by an art lately invented.

The inventor of this wonderful art, which, I think, does honour to modern times, was Dr John Wallis, one of the firſt members of the Royal Society, and a moſt ingenious, as well as learned man. He has written an excellent Engliſh grammar, which was reprinted in 1765, and ſubjoined to it is a letter of the author to one Beverly, wherein he gives an account of this art which he

had invented, and mentions two perſons upon whom he had practiſed it with ſucceſs. I knew two profeſſors of the art in Paris, one of them *Monſ. l'Abbé de l'Epée*, with whom I was ſeveral times, and whoſe civility, and the trouble he took to ſhew me his method of teaching, I take this opportunity of acknowledging. He had brought ſome of his ſcholars a ſurpriſing length; and one of them I particularly remember, a girl, who ſpoke ſo pleaſantly, that I ſhould not have known her to be deaf.—There is at preſent in Edinburgh a profeſſor of the ſame art, Mr Braidwood, whom I know, and who has likewiſe been at the trouble of ſhewing me his method of teaching; of which I very much approve. He has taught many with great ſucceſs; and there is one of his ſcholars particularly who is at preſent carrying on the buſineſs of a painter in London, and who both ſpeaks and writes good Engliſh. * But it is ſurpriſing what labour it coſts him to teach, and his ſcholars to learn: Which puts it out of all doubt, that articulation is not only an art, but an art of moſt difficult acquiſition, otherwiſe than by imitation, and conſtant practice, from our earlieſt years. For, in the firſt place, it is difficult to teach ſuch

* His name is Mr Shirreff. I mentioned him before upon another occaſion.

ſcholars to make any ſound at all. They at firſt only breathe ſtrongly, till they are taught to make that concuſſion and tremulous motion of the windpipe which produces audible ſounds. Theſe are very harſh, low, and guttural, at firſt, and more like croaking than a clear vocal ſound; which I think will account for what *Monſ. de la Condamine* tells us of the ſtrange method of ſpeaking of a people he found upon the banks of the river Amazons; for the ſound of their language was ſo low, and ſo much inward, more reſembling muttering than ſpeaking, that he imagined they ſpoke by drawing in their breath: And a girl whom I myſelf ſaw in France, that had been caught wild in the woods of Champaigne *, when

* There was an account of this ſtrange phaenomenon publiſhed in France by a lady, under the title, *Hiſtoire d'une Fille Sauvage*, and reviſed by *Monſ. de la Condamine*. It was tranſlated into Engliſh, and publiſhed in Edinburgh, in 1767, with a preface, ſhewing it to be very probable that ſhe came from a country upon the coaſt of Hudſon's bay, where ſhe was taken, and carried to one of the French iſlands in the Weſt Indies; from whence ſhe was again imbarked, and the ſhip was wrecked ſomewhere on the coaſt of France or Flanders; and it appears, that only ſhe and a negro girl eſcaped by ſwimming. At the time I ſaw her, ſhe had been thirty years

ſhe ſhewed me how the language of her country was ſpoken, made a low muttering ſound in her throat, in which I could hardly diſtinguiſh any articulation. After this difficulty, which is not ſmall, is got over, then comes the chief labour, to teach them the pronunciation of the ſeveral letters; in doing which, the teacher is obliged, not only himſelf to uſe many diſtortions and grimaces, in order to ſhew his ſcholars the poſitions and actions of the ſeveral organs, but likewiſe to employ his hands to place and move their organs properly; while the ſcholars themſelves labour ſo much, and beſtow ſuch pains and attention, that I am really ſurpriſed, that, with all the deſire they have to learn, which is very great, they ſhould be able to ſupport the drudgery. And I am aſſured by Mr Braidwood, that, if he did not take different methods with them, according to their different capacities, and the difference of their organs, it would be impoſſible to teach many of them. And this very well accounts for what ſeems ſo ſtrange at firſt, that thoſe Orang Outangs that have been

in France, but remembered many particulars concerning her own country.

brought from Africa or Aſia, and many of thoſe ſolitary ſavages that have been caught in Europe, never learned to ſpeak, tho' they had the organs of pronunciation as perfect as we: For, as it is well known, ſavages are very indolent, at leaſt with reſpect to any exerciſe of the mind, and are hardly excited to action by any curioſity, or deſire of learning.

If, therefore, this art be ſo difficult to be learned without imitation, even by the aſſiſtance of the moſt diligent inſtruction, how much more difficult muſt the invention of it have been; that is, the acquiring of it without either inſtruction or example?

Having thus proved the fact, as I think, inconteſtably, it will not be difficult to aſſign the reaſons, and explain the theory. For we need only conſider with a little attention the mechaniſm of ſpeech, and we ſhall ſoon find, that there is required for ſpeaking certain poſitions and motions of the organs of the mouth, ſuch as, the tongue, the teeth, lips, and palate, that cannot be from nature, but muſt be the effect of art: For their action, when they are employed in the enunciation of ſpeech, is ſo different

from their natural and quieſcent ſituation, that nothing but long uſe and exerciſe could have taught us to employ them in that way. To explain this more particularly, I think is not neceſſary for my preſent purpoſe. I ſhall have occaſion to ſay more of it afterwards; but who would deſire in the mean time to be better informed about it, may conſult Dionyſius the Halicarnaſſian, in his treatiſe of Compoſition, where he has moſt accurately explained the different operations of the organs in the pronunciation of the different letters. And whoever would deſire to be ſtill better informed, let him attend Mr Braidwood when he teaches, who, from his practice in that way, has learned to know more of the mechaniſm of language than any grammarian or philoſopher.

I ſhall only ſay further on this ſubject, that pronunciation is one of thoſe arts of which the inſtruments are the members of the human body; like dancing, and another art more akin to this, I mean ſinging: And, like thoſe arts, it is learned, either by mere imitation, man being, as Ariſtotle has told us, the moſt imitative of all animals; or by teaching, as in the caſe of deaf men; but

joined with very conſtant and aſſiduous practice; that being abſolutely neceſſary for the acquiring of any art, in which-ever of the two ways it be learned.

And here we may obſerve, that it is a very falſe concluſion, to infer, from the facility of doing any thing, that it is a natural operation. For what is it that we do more eaſily and readily than ſpeaking? and yet we ſee it is an art that is not to be taught without the greateſt labour and difficulty, both on the part of the maſter and the ſcholar; nor to be learned by imitation, without continual practice, from our infancy upwards. For it is not to be learned, like other arts, ſuch as dancing and ſinging, by practiſing an hour or two a-day, for a few years, or perhaps only ſome months; but conſtant and uninterrupted practice is required for many years, and for every hour, I may ſay, every minute of the day. And, even after it is learned with ſo much trouble and pains, it may, like other acquired habits, be loſt by diſuſe: Of which I mentioned a remarkable inſtance before, in a boy, who did not loſe his hearing till he was after eight years old, and had learned, not only to ſpeak

perfectly, but to read; and yet, when he came to be taught by Mr Braidwood, which was at the age of five and twenty, he had abſolutely loſt the uſe of ſpeech, and had it to learn as much as any of his ſcholars. So that we need not doubt of what we are told of Alexander Selkirk, who was but three years in the deſert iſland of Juan Fernandez; and yet, during that ſhort time, he had loſt the uſe of ſpeech ſo much as to be hardly intelligible to thoſe who found him there. Thoſe therefore who, from the facility of a performance, conclude, that it is not a work of art, but of nature, do not ſufficiently conſider how much of artificial habit there is in our natures, in the ſtate we are in at preſent, and that in this chiefly we differ from other animals, that the moſt of them, I mean ſuch as are wild, are altogether creatures of nature, and even ſuch of them as we have tamed, and aſſimilated in ſome degree to ourſelves, have ſtill much more of nature in them than of art; whereas a civilized man is ſo much more a creature of art than of nature, that his natural habits are almoſt loſt in his artificial.

I will make another obſervation before I conclude this article. If it had not been for

this new-invented art of teaching deaf perſons to ſpeak, hardly any body would have believed that the material or mechanical part of language was learned with ſo much difficulty. But, if we could get an Orang Outang, or a mute ſavage, ſuch as he above mentioned, who was caught in the woods of Hanover, and would take the ſame pains to teach him to think that Mr Braidwood takes to teach his ſcholars to ſpeak, we ſhould ſoon be convinced, that the formal part of language was as difficult to be learned as the material. For my own part, I am fully perſuaded, that the minds of men laboured as much at firſt, when they formed abſtract ideas, as their organs of pronunciation did when they formed articulate ſounds; and, till the mind be ſtored with ideas, it is a perfect void, and in a kind of lethargy, out of which it is roufed, only by external objects of ſenſe, or calls of appetite from within. It was this want of ideas which made the Hanoverian ſavage paſs, in the opinion of many, for an idiot; and it accounts for that brutiſh inſenſibility in a nation of which Diodorus Siculus, in his third book *, has

* *Cap.* 18. *edit. Weſſeling.*

given us an account. They were ſituated upon the coaſt of the Indian ocean, near to the ſtraits which join that ocean to the Arabian gulf. Ptolomy king of Egypt, the third of that name, having heard, he ſays, much of their brutiſhneſs and ſtupidity, had the curioſity to ſend one of his friends to bring him an account of them; who accordingly went, properly attended, and brought back to the king a report, which in ſubſtance amounted to this: That they neither deſired the company of ſtrangers, nor ſhunned it: That no appearance, however ſtrange, ſeemed to move them; for they kept their eyes always fixt, and never altered their countenance: That, when any perſon advanced upon them with a drawn ſword, they did not run away; and they bore all kinds of inſults and injuries without ſhewing the leaſt ſign of anger. Nor did thoſe of them who were ſpectators of ſuch injuries ſhew any indignation at what they ſaw their countrymen ſuffer. He adds, That they carried their inſenſibility ſo far, that, when their wives and children were killed in their preſence, they were even then unmoved, ſhewing no ſigns, either of pity or anger. In ſhort, ſays he, in the moſt terrible ſituations, they ſeemed perfect-

ly tranquil, looking ſtedfaſtly at what was doing, and, at every event that happened, giving a nod with their heads. Thus far Diodorus; and with this account many of the relations of our modern travellers, concerning people living in the loweſt ſtate of barbarity, agree. And I know a gentleman who ſaw in Batavia two ſavages brought from New Holland, that appeared to him to be perfectly ſtupid and idiotical, though he had no reaſon to think that they were more ſo than the other natives of that country.

CHAP. XVI.

That Language is not natural to Man, proved alſo from Arguments a poſteriori.

THUS I have endeavoured to demonſtrate, from the nature of language, conſiſting of ideas and the articulate ſounds by which they are expreſſed, that language is not from nature, but acquired habit. This kind of

demonſtration is ſaid to be *a priori*, being from principles and the nature of the thing; and though, in many caſes, it may be long and tedious, it is accounted the beſt; becauſe it not only proves that a thing *is*, but ſhews us *why* it is. But, as ſome of my friends, for whoſe judgement I have great deference, ſtill retain ſome doubts in this matter, I will endeavour to ſatisfy them by another kind of demonſtration, which is ſaid to be *a poſteriori*; becauſe it is not from principles, but from the conſequences which would follow, if the contrary hypotheſis were true. This method of demonſtration, is well known to mathematicians; and is ſaid by them to be *ex abſurdo*.

Let us ſuppoſe, then, that man, when he comes to the age of maturity, ſpeaks naturally; the conſequence, I think, will be, that this language, thus naturally ſpoken, muſt be as naturally underſtood: For it is impoſſible to conceive, that nature ſhould have given to man a method of communication which, not being underſtood, could be of no uſe. And, accordingly, we find, that thoſe ſigns of communication, which are acknowledged to be natural, ſuch as looks, geſtures, and inarticulate cries, are readily underſtood by all the animals of the ſame ſpecies. Now,

that there is any ſuch univerſal language exiſting in the world at preſent, or that it ever did exiſt, is a fact that certainly cannot be proved: And yet it muſt appear very extraordinary, that this natural language ſhould never have been found, not even among the moſt barbarous nations; but that all the people of the earth ſhould have agreed to exchange it for an artificial language, which none can underſtand who has not learned it. But, further, I ſay, that it is impoſſible to conceive any ſuch language: For I deſire any perſon to try, whether he can form a notion of any number of articulate ſounds expreſſing ideas, which will be immediately underſtood by every body as ſoon as uttered; and they muſt not only be underſtood ſingle, but in combination, ſo as to form diſcourſe; otherwiſe they would not ſerve the purpoſe of language.

But, further ſtill, I aſk, whether there be only one univerſal language of this kind, or more? If there be by nature but one which all men ſpeak when they come to the age of maturity; then I aſk of what kind is it? Nor ſhould it be difficult to anſwer this queſtion. For, having no variety, but being every where the ſame, and proceeding immediately and

directly from nature, it ſhould be eaſy, one would imagine, to explain of what kind the ſounds are which muſt neceſſarily form this one language naturally ſpoken and naturally underſtood. Yet this is what no body hitherto has attempted to do, ſo far as I know; and, if it ſhall be attempted, I will venture to propheſy that it will be without ſucceſs. On the other hand, if we ſuppoſe that there is more than one natural language, a ſuppoſition which is much more probable, as it is hardly poſſible to conceive, that different herds of ſavages, in different parts of the earth, ſhould all ſpeak the ſame language, or, if it could be conceived, it is contradicted by the fact; ſince it is well known how different the languages of barbarous nations, even inhabiting the ſame country, are from one another; then I aſk how many there are of thoſe natural languages? To this queſtion the only anſwer that can be given, I imagine, is, that they are as many, as there are tribes or herds of ſavages, who have happened to aſſociate together, that is, almoſt infinite; and yet this ſo great number of different languages are all to be underſtood by every one, as naturally as they are ſpoken; a thing which appears to me

altogether abſurd; it is, however, the neceſſary conſequence of the hypotheſis, that language is natural to man.

I have heard it obſerved, that children, who are much together, make a kind of language for themſelves, which they underſtand, but which grown perſons, not accuſtomed to their prattle, do not underſtand. But this language can be no other than an imperfect imitation of the articulate ſounds which they have heard; from which we cannot, I think, with any degree of probability, infer that they would have invented articulation, tho' they had never heard it. In the ſame manner, we ſee them following analogy in the tenſes of verbs; for they ſay *drawed*, inſtead of *drawn*, *thinked*, inſtead of *thought*. But can we from thence infer, that they could have invented this way of expreſſing the different times of verbs, by varying the word, or its termination, in a certain manner?

Again, if language be natural to man, the conſequence is, that nature has beſtowed upon him what is not neceſſary, either for the preſervation of the individual, or the continuation of the ſpecies; for there are countries of the earth where men may ſub-

ſiſt upon the natural fruits of the earth, and multiply, to a certain degree, without any art at all; and, in ſuch countries, it is highly probable that the human race firſt began. Or, if arts of ſubſiſtence were neceſſary, as they certainly are in ſome countries, it ſhall be proved, in the ſequel, that theſe might be carried on without the uſe of language. Now, there is no other inſtance can be given of nature having beſtowed, upon any animal, more than is neceſſary for the preſervation of the individual, or the propagation of the kind. And, if we are to ſuppoſe that nature, in her bounty to our ſpecies, has gone beyond neceſſity, we cannot ſtop; but muſt farther ſuppoſe, that ſhe has beſtowed upon us all the arts which miniſter to our convenience, utility, or even pleaſure; in ſhort, all the arts of life.

And thus, whether we conſider the matter in its principles, or in its conſequences, it ſeems to be demonſtrated, that language does not proceed from nature, but from acquired habit.

BOOK II.

INTRODUCTION.

IN the preceeding book, I have endeavoured to prove, by various arguments, that language is not natural to man. If this be true, one of two things muſt neceſſarily follow; either, that language is the fruit of human art and induſtry; or, that it muſt have been revealed from heaven.

Another thing alſo appears to be evident from what has been ſaid, That, if language was invented, it was of very difficult invention: For if, even after it is diſcovered, it be *learned*, as we have ſeen, with ſo much pains and labour, it muſt have been *invented* with infinitely more. And indeed the difficulty of the invention appears ſo very great, that it ſeems hard to account how it ever happened; and it is the more ſo, that it muſt have been among the firſt arts invented. For one art diſcovered, naturally leads to another; but the beginning in all things is exceeding difficult: And what

makes the difficulty the greater is, that, as Ariſtotle has obſerved, all our learning at firſt is from imitation *. Children among us do certainly learn in that way; and what is commonly ſaid I believe to be true, that men learned at firſt to build from the ſwallow, or any other bird that makes ſuch an artificial neſt; from the ſpider to weave; and from the birds to ſing. This laſt I have a particular reaſon for believing to be true; becauſe the wild girl above mentioned, whom I ſaw in France, told me, that the only muſic of the people of her country was the imitation of the ſinging of birds; and ſhe affirmed, that ſhe herſelf could once have imitated the notes of any bird. But this faculty, as well as many others which ſhe poſſeſſed in the wild ſtate, ſhe had loſt; for it was then, when I ſaw her, above thirty years after ſhe was caught. In ſhort, it appears to me, that we reſemble very much an American or Weſt-India bird that I have heard of, called the *Mock-bird*, which has no tune of its own, but imitates the notes of any other bird: For we ſeem to ſet out in life without any original ſtock of our own, or any natural

* *Poetic. cap.* 4.

talent beſides that faculty of imitation, which nature has beſtowed upon us in ſo high a degree, that Ariſtotle has denominated man, very properly, the moſt imitative of all animals. Now while man was learning other arts by imitating the inſtinct of the brute creation, by what imitation could he learn to ſpeak?

Theſe, and many other conſiderations that might be mentioned, have induced ſome learned men whom I have known, to believe, upon philoſophical as well as religious principles, that it exceeded the power of man to invent ſo wonderful an art; and that therefore it was the gift of God, or of ſome ſuperior nature *. This is an opinion that I am far from rejecting as abſurd, or improbable; nor would I have it believed that I pay no regard to the account given in our ſacred books of the origin of our ſpecies: But it does not belong to me, as a philoſopher or gra-

* This appears to have been an opinion as old as the days of *Plato*, who, in his dialogue upon language, I mean the *Cratylus*, *p.* 291. *edit. Ficini*, tells us, that ſome, in order to ſolve the difficulty about the firſt names or radical words of language, did, as the tragic poets do when they cannot otherwiſe unravel their fables, bring down a god, as in a machine, to cut the knot.

marian, to inquire whether ſuch account is to be underſtood allegorically, according to the opinions of ſome divines *; or literally,

* See upon this ſubject *Burnet's Archaeologiae philoſophicae lib.* 2. *cap.* 7. and the authorities by him there quoted; from which it appears, that it was not only the opinion of the Jews, but of the Chriſtians of the firſt centuries, that the circumſtances related by Moſes concerning the origin of man are to be conſidered as allegorical or parabolical, like the parables in the New Teſtament, and as many other paſſages in the Old muſt be underſtood. See alſo two very elegant epiſtles of the ſame author, annexed to his *Archaeology*.

As to the Jewiſh doctors, the ſingle authority of Joſephus is worth that of them all. For, beſides his Greek learning, he appears to have been exceedingly learned in the religion and antiquities of his country, having ſtudied diligently, as he tells us himſelf, the doctrines of the two moſt famous ſects among the Jews, the Phariſees and the Eſſenians. And, in order to proſecute his ſtudies with more leiſure, he retired to a deſart, where he ſpent three years with a very learned hermit; *Joſephi vita ab ipſo conſcripta, in initio.*

From the commentary he makes upon Moſes's account of the primitive ſtate of man, it is clear he thought it an allegory. He introduces it with theſe words: Και δη και φυσιολογειν Μωυσης μιλα την ιδεαν ηρξατο περι της του ανθρωπου καταστασεως, λιαν ουτως, &c. *Antiq. lib.* 1. *cap.* 2. Now, φυσιολογειν is a word that cannot be applied to a plain narrative of an hiſtorical fact; but muſt mean, that Moſes, by the ſtory he tells, intended to repreſent the natural ſtate of man. And from what he makes God Almighty ſay to Adam after his fall, it is plain that he underſtood the garden of Eden to be a type of that primitive ſtate of men, when they lived upon the natural fruits of the

and as an hiſtorical fact; an inquiry, beſides, which I am very ill qualified for, not underſtanding the original language of thoſe books. But ſuppoſing that we are to under-

earth, without toil or labour, and with perfect innocence and ſimplicity of manners. As I cannot judge of the ſenſe of Moſes, otherwiſe than by authority, I muſt be forgiven to think that this ſo learned Jew underſtood the books of Moſes as well at leaſt as any modern divine. But, even among theſe, authorities are not wanting in ſupport of this opinion. And I will give one among them too, which I think may ſtand in place of many. It is that of a divine, ſtill living, of the greateſt learning, and a moſt able critic, both of ſacred and profane writings. By this deſcription the reader will eaſily gueſs that I mean Dr Warburton, the author of the *Divine Legation of Moſes*, the moſt learned work which this age has produced. He has ſaid, that the ſtory of the fall, as ſtated by Moſes, is "a real fact told allegorically." *Div. Leg. book* 4. § 4. *vol.* 3. *p.* 105. in a note. Supported by ſuch authorities, I think I may venture to go ſo far as to ſay, that it would not be for the credit of religion to underſtand literally all the circumſtances of that relation, ſuch as the converſations betwixt God and man, the woman and the ſerpent. For, if we are to underſtand theſe literally, we muſt underſtand in the ſame manner thoſe recorded in the beginning of the book of Job, which by many divines is ſuppoſed to be written by Moſes. Such literal interpretations of ſcripture have been made a topic of ridicule by ſome libertine writers, of which tho' I by no means approve, it is better to avoid giving them a handle by interpreting improperly the figurative and allegorical manner in which thoſe ancient

ſtand the ſtory in the literal ſenſe, and that ſo underſtood, it neceſſarily implies, (for it is not expreſſed), that the gift of ſpeech was once beſtowed by God upon man, it may afterwards have been loſt, as certainly many other gifts, beſtowed upon the firſt pair, were loſt, after the fall, and not tranſmitted to their degenerate poſterity. Or, ſhould we ſuppoſe it continued to the race, as well as other arts which the firſt pair poſſeſſed, ſuch as that of tilling the ground, which was their occupation in Paradiſe; yet both this art of language, and thoſe other arts, may ſome time or other have been loſt, by ſuch calamities as have befallen the human race, in many parts of this earth, by fire or water, plague or famine; inſomuch that they have been either totally deſtroyed, or very

oriental writers relate facts. It is from the converſations, recorded in the beginning of Geneſis, and from theſe only, that we can infer that language was revealed to the firſt pair. Now, thoſe who are converſant in the oriental writings, and even in the moſt ancient Greek authors, know well, that the dialogue introduced into thoſe writings, is only a way of telling a ſtory—and a moſt pleaſant way it is, as, beſides the facts, it gives us characters, and manners, and joins to the truth of hiſtory the pleaſure of poetical imitation. This is what makes Herodotus the moſt pleaſant hiſtorian that ever wrote.

ſmall remains left, and theſe ſcattered and diſperſed: So that all arts, and even language itſelf, which cannot be preſerved without ſocial intercourſe, were in proceſs of time loſt among them *. In this ſolitary ſtate we may ſuppoſe them to have been for ſome time, till the males and females, by natural inſtinct, going together, the race would increaſe, and at laſt become numerous enough to herd and aſſociate together. Or, without having recourſe to ſuch extraordinary accidents as the deſtruction of whole nations by fire or inundation, we may ſuppoſe that thoſe ſavages above mentioned, which have been found in different parts of Europe, had come together, (and two of them were actually found together in the Pyrenæan mountains), and had multiplied. In ſuch caſes we have no warrant to believe, that another miracle would be wrought, and that

* See *Plato's Timæus*, in the beginning, where the converſation is related betwixt *Solon* and the *Ægyptian prieſt*, in which, among many calamities that have befallen this earth, at different times, by fire and water chiefly, but likewiſe from many other cauſes, he mentions particularly the deſtruction of the Atlantic iſland, by the ſubſiding of the earth, and the inundation of the ſea, in the ſame way that a part of the city of Liſbon was lately deſtroyed.

language would be again revealed; and therefore we are at liberty to ſuppoſe it poſſible, and I ſay no more, that, in proceſs of time, they might have invented a language. It will be the ſubject of this book to ſhew, how this might have happened, by what ſteps and degrees, and of what nature the firſt invented languages probably were.

CHAP. I.

Of the Connection betwixt Society and Language.—An Inquiry into the Origin of Society neceſſary.

THE difficulty of the invention of language muſt appear ſo very great to the philoſophical reader, that he will not be ſurpriſed that I have ſpent ſo much time, and muſt ſtill ſpend more, upon the preliminaries of it. I ſaid, in the beginning of the work, that it was an inquiry that would lead me back to the very origin of the human race; and it has ſo happened. For I could not give the philoſophical account I propoſed, of the origin of language, without inquiring into the origin of our ideas. This made

it neceſſary for me to define and divide them, to explain the nature of the two ſeveral kinds of them, and to ſhew how they were formed, without ſuppoſing them to be the work of nature. I have thought it proper alſo, in this diſquiſition, to ſtate the ſeveral opinions of philoſophers concerning ideas, and to refute, as well as I was able, the opinion of thoſe who maintain, that we have no *ideas*, but only *perceptions of ſenſe*.

Tantae molis erat HUMANAM condere gentem *.

But with all this labour we have only made of man a *rational* animal; it remains ſtill to make him a *ſpeaking* animal. For this purpoſe I hold *ſociety* to be abſolutely neceſſary: For, though a ſolitary ſavage might in proceſs of time acquire the habit of forming ideas, it is impoſſible to ſuppoſe, that he would invent a method of communicating them, for which he had no occaſion. Our ſubject, therefore, further leads us to inquire into the origin of ſociety; which appears to Monſ. Rouſſeau † to have ſo neceſſary a connection with language, that he

* *Tantae molis erat Romanam condere gentem.*
VIRG. Æn. i.

† See his treatiſe on the inequality of mankind.

propoſes it as a queſtion to be reſolved by the learned, *Which was moſt neceſſary, language for the inſtitution of ſociety, or ſociety for the invention of language?* This queſtion I hope I ſhall be able to ſolve, by ſhewing, that ſociety muſt have been firſt in the order of things; and that, though it was impoſſible that language could have been invented without ſociety, yet ſociety, and even *political* ſociety, may have ſubſiſted, perhaps for ages, before language was invented.

This is an extenſive ſubject of inquiry, and belongs to a greater work, which I have long meditated, but probably ſhall not live to execute, I mean, *The Hiſtory of Man.* But, as my preſent ſubject requires that I ſhould ſay ſomething of it, I will endeavour, in as few words as poſſible, to explain my notions concerning the beginning of ſociety.

And the firſt queſtion to be conſidered upon this ſubject, as well as with reſpect to language, is, Whether it had a beginning at all? that is, Whether it be from nature, or of human inſtitution? for there are many who believe that we are naturally a *political*, as well as a *ſpeaking* animal: And indeed there is ſuch a connection betwixt the two, that, if it could be ſhewn that we

are by nature *political*, I ſhould think it not improbable that we derived from the ſame ſource the gift of ſpeech.

CHAP. II.

Diviſion of Animals into Solitary and Gregarious, Political and not Political.—Man to be ranked in neither of thoſe Diviſions, but in the Middle of each of them.—Other Animals of the ſame amphibious Kind.

ALL animals, ſays Ariſtotle, are *gregarious*, *ſolitary*, or *betwixt the two*; that is, participating of the nature of both, and able to live, either in ſolitude, or in company, as occaſion requires. Again, of the gregarious kind, ſome are *political*; that is, carry on together one common work; others have no ſuch bond of union, and live together without any joint ſtock, or common good of any kind *. The que-

* The paſſage is in the firſt chapter of the firſt book of *Ariſtotle's Hiſtory of Animals*. The words are, Τα μεν

ſtion, is what place we are to aſſign to man in theſe two diviſions? And with reſpect to the firſt diviſion, Ariſtotle has decided, that he is by nature neither

γαρ αυτων (ζωων) εστιν αγελαια· τα δε μοναδικα, και πεζα, και πτηνα, και πλωτα· τα δε επαμφοτεριζει. Και των αγελαιων και των μοναδικων τα μεν πολιτικα, τα δε σποραδικα εστι. Αγελαια μεν ουν, οιον εν τοις πτηνοις το των περιστερων γενος, και γερανος, και κυκνος· γαμψωνυχων δε ουδεν αγελαιον και των πλωτων πολλα γενη των ιχθυων, οιον ους καλουσι δρομαδας, θυννοι, πηλαμιδες, αμιαι· ο δε ανθρωπος επαμφοτεριζει. Πολιτικα δε εστι, ων εν τι και κοινον γινεται παντων το εργον· οπερ ου παντα ποιει τα αγελαια. Εστι δε τοιουτον, ανθρωπος, μελιττα, σφηξ, μυρμηξ, γερανος.

Upon this paſſage there are ſeveral obſervations to be made. In the *firſt* place, I hold, that an error has crept either into the MS. or the printed editions, where it is ſaid, that των αγελαιων και των μοναδικων τα μεν πολιτικα, &c. For it is impoſſible to conceive that any of the ſolitary animals, that is, ſuch as by nature live in ſolitude, and in ſolitude only, ſhould be political. It is therefore plain, that the diviſion only relates to the gregarious: So that the text ſhould run thus, των δε αγελαιων τα μεν εστι πολιτικα, τα δε σποραδικα, where we may obſerve the great propriety of the word σποραδικα, which denotes, *ſcattered like ſeed that is ſown upon the ground;* and therefore very fitly expreſſes the condition of thoſe animals living together in flocks or herds, but having no common bond of union.

2*dly*, In this paſſage *Ariſtotle* calls man a *political animal*, and claſſes him with the bee and ant; from which it may be inferred that Ariſtotle underſtood man to be by *nature* political, not by inſtitution only. But with

gregarious nor ſolitary, but participates of both: And, I think, rightly. For man is allowed by all phyſiologiſts to be of more various mixture and compoſition

reſpect to his applying to him the word πολίτικος, it is to be obſerved that thoſe adjectives in -τικος, whether derived from verbs or nouns, ſignify the *capacity* of doing, without diſtinction whether the thing to which they are applied have the actual poſſeſſion of the capacity, or the power only of acquiring it. Thus it may be ſaid of man, at the time of his birth, that he is ζωον θνητικον, as well as when he is grown up, and in poſſeſſion of the faculty. And in the Peripatetic definition of *man*, he is ſaid to be ζωον λογικον; by which is certainly not meant, that he is rational at the time of his birth, but only has the capacity of becoming ſo: And Ariſtotle himſelf, in his *Categories*, has uſed the words δεκτικὰς and πυκτικος to denote him that has no more than a *natural aptitude* for excelling in thoſe exerciſes, without having acquired the *habit*. See *Ammonius in Categor. p.* 135. It is true, the Greek language is very rich in words, and is plainly the work, not of grammarians only, but of philoſophers; yet it has not made all thoſe accurate diſtinctions and diviſions of things which philoſophy makes: And accordingly, though it has diſtinguiſhed betwixt *energy* and *power*; yet it has not diſtinguiſhed betwixt that kind of power which I call *capability*, and *actual capacity*, or *faculty*; ſo that Ariſtotle, as we have ſeen, was obliged to uſe the ſame word (δυναμις) to expreſs both, though he very accurately made the diſtinction. I hold, therefore, that ζωον πολιτικον in this paſſage denotes only an animal *capable of being political*. And as to his claſſing man with ants and bees, it muſt be allowed to be ſomewhat

than any other animal known, as we have already ſeen. He is rational and irrational; he has intellect, and he has not intellect; he is a biped, and he is not a biped; he is

inaccurate, that he did not there make the diſtinction betwixt being actually political by nature, and only capable of becoming ſo: But I think it is almoſt impoſſible to believe he thought man naturally political in the ſame ſenſe that a bee is, when he reckons him not even of the gregarious kind, but ſomething betwixt them and the ſolitary.

Laſtly, We may obſerve upon this paſſage how properly *Theodorus Gaza*, the tranſlator of this part of Ariſtotle's works, has paraphraſed the word ἀπαμφοτερίζει, *vitam aliae (animantes) ancipitem degunt, ut eaedem modo ſocietate, modo ſolitudine, gaudeant.* This *Theodorus Gaza* was one of thoſe learned Greeks who fled from the barbarians, after the taking of Conſtantinople, into Italy, and was employed by the Pope of thoſe times to tranſlate the Greek learning into Latin. For this purpoſe it was neceſſary that he and the reſt of his countrymen who were ſo employed, ſhould firſt learn the Latin tongue, the knowledge of which was as totally loſt in the Eaſt, as that of the Greek was in the Weſt. We may judge, therefore, how much we are obliged to the labours of thoſe learned Greeks, who, if they had not ſubmitted to the drudgery of learning Latin, as our boys do at ſchool, (a moſt ungracious talk for men that knew a language ſo much better, and in which all arts and ſciences are to be found in greater perfection than in Latin), could never have taught us Greek. Some of them, as it appears, thought themſelves very ill paid for their labours; and it was either this *Theodorus*, or his country-

a land-animal, and he is a water-animal; and, among other varieties, he is ſocial, and he is not ſocial. In ſhort, he appears to be placed on the confines betwixt different kinds of beings; and as the *Zoöphyte* is in the middle betwixt the vegetable and animal, ſo *man* appears to occupy the ſpace betwixt the ſeveral claſſes of animals.

But in what ſenſe does man participate both of the gregarious and ſolitary kind? Ariſtotle has not explained this: But it is obvious, that, in one ſenſe at leaſt, he is akin to both; for, as he can live in ſociety, ſo he can live without it. For not only ſavages can procure for themſelves the means of ſubſiſtence in a ſolitary life, but even men that had been brought up in ſocieties, ſuch as thoſe of Europe, and conſequently were in that ſtate of indigence and dependence which is neceſſarily produced by ſuch an education, have been able, when forced to it, to live by themſelves. But further, as by no ne-

man *Georgius Trapezuntius*, I have forgot which, that having got a purſe of gold from one of the popes, which he thought too ſmall a reward for the trouble it had coſt him to tranſlate ſome Greek author, threw it into the river Tiber, with this ſaying, *Periere labores; pereat et eorum ingrata merces. Vid. Bruckeri Hiſt. Philoſoph.*

ceſſity of his nature he is obliged to live in ſociety, ſo neither do I think, that by any propenſity of his nature he is determined to live in that way more than in the ſolitary life. And in that reſpect too, I think he is in the middle betwixt the two kinds, and differs from other animals, ſuch as horſes, oxen, ſheep, and deer, which, though they can ſubſiſt without one another's aſſiſtance, yet have a ſtrong inclination to the fellowſhip of their own ſpecies.

When I ſay ſo, I would not have it underſtood, that I believe, as Mr Hobbes does, that man is naturally the enemy of man; and that the ſtate of *nature* is a ſtate of *war* of every man againſt every man *. This is ſuch a ſtate as neither does exiſt, nor ever did exiſt, in any ſpecies of animals: And, however ingenious Mr Hobbes may have been, (and he certainly was a very acute man, and much more learned than thoſe who now-a-days ſet up for maſters in philoſophy), it is plain to me, that he did not know what man was by nature, diveſted of all the habits and opinions that he acquires in civil life; but ſuppoſed, that, previous to the in-

* Hobbes's Leviathan, *cap.* 13.

ſtitution of ſociety, he had all the deſires and paſſions that he now has. But my opinion is, that man participates ſo much of the gregarious animal as to have no averſion to the ſociety of his fellow-creatures, far leſs to be the natural enemy of his own ſpecies, as certain ſpecieſes are of others; and that he alſo has ſo much of the nature of the ſolitary wild beaſt, that he has no natural propenſity to enter into ſociety, but was urged to it by motives to be afterwards explained. What, among other things, induces me to think that he is of this mixt kind, is the formation of his teeth and inteſtines. He has teeth for tearing, and others for grinding; whereas the ſolitary beaſt of prey has only teeth for tearing; and the frugivorous animals (ſo I call thoſe who feed only on grain or herbage) have only grinders, ſuch as the ox and ſheep; or, if they have teeth which ſerve ſometimes for tearing, ſuch as thoſe of the horſe, they are not near ſo much inciſive as thoſe of man, which, by one nation that has been diſcovered upon the coaſt of New Guinea, are uſed as an offenſive weapon; for, we are told, they bite thoſe they attack, like dogs *. As to the inte-

* This is related by *Le Mere*. See the paſſage quoted below, when I ſpeak of barbarous nations.

ſtines, the animals of prey have ſhort guts, the frugivorous have them long; but man has them of a middle length betwixt the two. And, in conformity to this ſtructure of his body, it is well known that man can live, either upon the fruits of the earth, or upon the fleſh of other animals. His nails, too, ſeem to place him in a middle ſtate betwixt thoſe two kinds of animals. The frugivorous have no nails at all; the carnivorous have crooked nails or talons; and all ſuch animals Ariſtotle, in the paſſage above quoted, ſays are ſolitary. But man's nails are ſtraight; and therefore, though not ſo fit for piercing, or holding, as thoſe of the beaſts of prey, they are proper enough for tearing. Accordingly Sir Francis Drake tells us, that he found a people in the ſouth ſea, who had the nails of their fingers about an inch long, which ſerved them for offenſive arms *.

But, though I think that man has from nature the capacity of living, either by prey, or upon the fruits of the earth; it appears to me, that by nature, and in his original ſtate, he is a frugivorous animal, and that he only be-

* The particular paſſage is quoted afterwards.

comes an animal of prey by acquired habit *. The hiſtories of antient nations inform us, that the people in the firſt ages lived only upon the fruits of the earth †; and that man is not naturally an animal of prey, ſeems to be proved by what Mon-

* Man did not become carnivorous till he became a hunter, and he could not be a hunter till he had invented ſome kind of arms; and not even immediately after that; for the Orang Outangs, though they uſe ſticks, do not hunt, but live upon the natural fruits of the earth. It was therefore neceſſity which drove men to this unnatural diet, and luxury has continued it; at leaſt this is the opinion of Plutarch, περὶ Σαρκοφαγίας, p. 456. *Edit. Froben.*

† *Diodorus*, in the beginning of his hiſtory, *lib.* 1. *cap.* 8. *edit. Weſſeling*. gives this account of the way of living of the firſt men. He ſays, they ſubſiſted upon herbs, and the fruits of trees. *Pauſanias*, in his deſcription of Greece, *lib.* 8. *in initio*, informs us, that, according to the traditions of the Arcadians, a very antient people of Greece, the firſt inhabitants of that country lived in the ſame manner; and, even in the times of hiſtory, we ſee, from an oracle recorded by *Herodotus*, that they were then eaters of acorns, *lib.* 1. *cap.* 66. The poetical fictions concerning the golden age have, like moſt of the Greek fables, a foundation in hiſtorical truth; particularly in that circumſtance, of men living upon the fruits of the earth, without blood or ſlaughter. For the account which the antient Greek poets, who were their firſt hiſtorians, as well as philoſophers and divines, give us of that

ſieur Bougainville relates, (and I have heard the like from others), that, when he landed in the Malouine, or *Falkland Iſlands*, as we call them, which are uninhabited, all the animals came about him and his men; the fowls perching upon their heads and ſhoulders, and the four-footed animals running among their feet. Now, if man had been naturally an animal of prey, their inſtinct would have directed them to avoid him, as experience directs the wild animals of this country to do. But, though he be not, in this firſt ſtage of his nature, an animal of prey, yet I hold, that he has even then no natural propenſity to ſociety.

age, is no other than a repreſentation, a little embelliſhed and exaggerated after the manner of the poets, of the ſimple and natural way in which men lived in the firſt ages of the world, feeding upon herbs and fruits, which the earth produced ſpontaneouſly. This golden age may be ſaid yet to exiſt in ſome of the countries that have been diſcovered in the South Sea, where the inhabitants live, without toil or labour, upon the bounty of nature in thoſe fine climates. In ſome of thoſe countries there was nothing elſe that the inhabitants could ſubſiſt upon; particularly, in the *Ladrone iſlands*, when they were firſt diſcovered by the Spaniards, there was neither hog nor dog, which are animals commonly found in the iſlands of the South Sea, nor any other terreſtrial animal, of any conſiderable ſize, beſides man.

I know that this opinion of mine is very different from the common opinion, and that it is generally believed, that men are by nature as much or more united to their kind, than any other ſpecies of animal. But let thoſe who believe ſo, conſider one thing belonging to our ſpecies, and which ſeems to be a peculiarity that diſtinguiſhes us from every other land-animal, and ſets us at a greater diſtance from our kind, than even the beaſts of prey are from theirs; what I mean is, the practice of men feeding upon one another. Thoſe who judge of mankind only by what they ſee of the modern nations of Europe, are not, I know, diſpoſed to believe this; but they may as well not believe, that there are men who live without cloaths or houſes, without corn, wine, or beer, and without planting or ſowing: And if there were any doubt before, it is now entirely removed, by the late diſcoveries that have been made in the South Sea *. And I am perſuaded, that moſt nati-

* I mean, thoſe made by Mr Banks and Dr Solander, in their late voyage to the South Sea; where they found, in the country called *New Zealand*, a people who fed on human fleſh; but were, in other reſpects, far from being a

ons, at ſome time or another, have been cannibals; and that men, as ſoon as they became animals of prey, which, as I have ſaid, they were not originally, fed upon thoſe of their

barbarous or inhuman people, but, on the contrary, brave and generous. *Gabriel Sagard*, an author that I ſhall have occaſion to mention frequently in the ſequel, who was miſſionary among the *Hurons*, a people of North America, in 1630, informs us, that it was then an eſtabliſhed practice among that people to feaſt upon their priſoners of war: And I myſelf know a French Jeſuit, one *Monſ. Rouſſard*, who was miſſionary among a tribe of Indians in North America, called the *Albinaquois*, and who told me he ſaw eight and twenty Britiſh men eaten at a breakfaſt by a tribe of Indians, who had come to the aſſiſtance of the French in the late war, from a remote part of that country towards the weſt, where they ſtill preſerved the cuſtom of eating men, which appears to have been once univerſal among the nations of that continent. The Britiſh had been taken priſoners by this tribe; and, though the French general, *Monſ. Moncalme*, was at great pains to ſave them, and offered the Indians double the number of beeves in the place of them, he could not accompliſh it; for the Indians ſaid, they were not ſuch fools as to prefer the fleſh of oxen to that of Engliſhmen. I am well informed, too, that there is a nation in the inland parts of Africa, where human fleſh is expoſed to ſale in the market, as beef and mutton is among us. *Garcilaſſo de la Vega*, (an author of whom I ſhall give a particular account afterwards), in his hiſtory of Peru, ſays the ſame thing of a certain nation in South America, upon the

own kind, as well as upon other animals. So that it appears to me evident, that man has not that natural abhorrence to the fleſh of man, that lions and tigers, and other beaſts of prey, have to that of their own ſpecies; who, ſo far as I can learn, never feed upon one another, except when urged by the extremeſt hunger.

This therefore is another peculiarity of our ſpecies, which diſtinguiſhes us from both the carnivorous and frugivorous kinds of animals; and proves to me inconteſtibly, that what is ſaid by philoſophers of the at-

authority of a Spaniſh writer, one *Pedro de Cieca*, who affirms, that he ſaw there, with his own eyes, human fleſh expoſed to ſale in the ſhambles; and that they ate their own children whom they begat upon their female captives; and, with reſpect to their male captives, they gave them women to breed out of, and they fattened and ate the offspring as we do calves and lambs; *book* 1. *chap.* 5. We need not therefore doubt of the truth of thoſe ſtories told by Herodotus, and other antient authors, of Indian and Scythian nations that fed on men's fleſh. We are not however to believe, that there ever was a nation that fed promiſcuouſly upon one another; for the fact is, that all ſuch nations eat only their enemies, or ſtrangers, whom they treat as enemies, and ſuch of their own people as die, or become uſeleſs through age or infirmities.

tachment we have to our common nature, and of thoſe ties of love and ſympathy which bind us ſo faſt together, applies only to the rational, not to the natural animal; for, as Marcus Antoninus the Emperor has obſerved, we are ſocial, becauſe we are rational *.

Let us next conſider how man ſtands with reſpect to the other diviſion of animals, into *political* and *not political*: And I ſay, that he is likewiſe in the middle betwixt theſe two; for he is political, not by nature, but by inſtitution, and acquired habit. And, indeed, if he be not by nature even a herding animal, it follows of conſequence that he is not political: Nor can we ſuppoſe that any thing is *natural* to an animal that is not *neceſſary* for his ſubſiſtence, which certainly the political life is not to man; whereas, to the bee and ant, it is natural, becauſe it is neceſſary; and, accordingly, thoſe animals have never been found ſingle or detached. With reſpect to man, it appears to me, that he has herded, and entered into the political life, for the ſame reaſons, and at the ſame time; and therefore, I believe

* Εστι το λογικον, ενδυς και πολιτικον. *Meditat. lib.* 10.

no men have been found herding together who did not likewiſe carry on ſome common work; which is the definition given by Ariſtotle of the political life, as was before obſerved.

But is man the only animal that is in this ſtate, with reſpect to the ſocial and political life? If it were ſo, it would be nothing extraordinary in ſo extraordinary an animal as man. But there are other animals of the ſame amphibious nature. And, *firſt*, there is the wild boar, which, while he is young, is a herding animal; but, when he grows old, he lives by himſelf, and becomes what the French call *un ſolitaire*. Then, with reſpect to the political ſtate, the horſe in this country is not a political animal, though ſocial and gregarious: But, in the deſarts of Tartary and Siberia, he is political; for, being there hunted by the Tartars, as hares and deer are in this country, they, for ſelf-defence, form themſelves into a kind of community, and take joint meaſures for ſaving themſelves, which they commonly do by flight; and, that they may not be ſurpriſed by their enemy, they ſet watches, and have commanders, who direct and haſten their flight; ſome of whom have been

ſeen bringing up the rear, and biting and kicking the hindmoſt, in order to make them run faſter.

But there is another animal that reſembles us ſtill more in this reſpect, and that is the beaver; of which I ſhall ſay a great deal more afterwards. But it is ſufficient for my preſent purpoſe to obſerve, that he is preciſely what I ſuppoſe man to be, amphibious betwixt the ſolitary and the ſocial life: For, in certain countries, particularly in North America, and ſome of the northern countries of Europe, he is found living in what may be called *civil ſociety*, without metaphor or exaggeration; whereas, in other countries, where they are not ſo numerous, or in thoſe very countries when they happen to be diſperſed, and their villages (for ſo I may call them) ruined by the men who hunt them, or, when they are prevented by men from aſſociating, as they are in all the ſouthern countries of Europe, they lead a ſolitary life, and hide themſelves in holes, without any community or public good *.

Of the ſame amphibious kind is an animal well known in this country, viz. the

* *Buffon's Hiſt. Natur.* vol. 8. pag. 297.

hare, which, being few in number in all the countries of Europe, and much perſecuted by men, lead a ſolitary life, and never aſſociate or form a public; but, in the plains of Tartary, they are gregarious. The fact we are aſſured of by the ſame author, who informs us of what is above related concerning the horſe, viz. Mr Bell, who has publiſhed his travels through Tartary and Siberia, which he made with the Ruſſian caravan that goes to China. Now, I cannot conceive that the hare, which by its nature appears to be ſolitary, ſhould aſſociate in Tartary for any other reaſon except ſuſtenance and ſelf-defence; which, as I ſhall ſhew afterwards, are the reaſons that made men firſt herd together, and enter into the political life. What kind of *policy* the hares have, in their aſſociated ſtate, Mr Bell has not told us; but I am perſuaded they have ſomething of that kind; otherwiſe I do not think that they would have come together. For even thoſe animals, ſuch as the ſheep, which are not political while they are fed and protected by us, become ſo when they live in a kind of natural ſtate by themſelves in the hills: And accordingly they are obſerved to ſet watches in the night-time againſt

their enemy the fox, who give notice of his approach; and, when he attacks them, they draw up in a body, and defend themſelves. And, in general, as nature appears to me to have always ſome further intention than pleaſure merely, and the gratification of appetite and inclination, I think it is probable that ſhe has not given to any animal that deſire for ſociety, without intending that it ſhould be uſeful for ſome political purpoſe, either of ſuſtenance or defence: So that I doubt whether *gregarious* and *political* animals differ entirely in their natures, or only in the *more* or *leſs*; ſo that ſome by the neceſſities of their nature are more political, others leſs.

But that the fierce and ravenous animals, which ſubſiſt entirely by prey, are naturally ſolitary, and averſe to all ſociety, cannot be doubted, for this plain reaſon, that they can both ſubſiſt and defend themſelves without it. For, though ſome wild beaſts are much ſtronger than others, yet, as they do not prey upon one another, the weaker have no occaſion to aſſociate in order to protect themſelves againſt the ſtronger. But, though they have no ſociety on that account, they are by nature directed to aſſociate with the

female at certain times, for the purpoſe of propagating the ſpecies; but this intercourſe continues no longer than is neceſſary for that purpoſe. That time is longer or ſhorter according to the nature of the animal. Among the birds, it continues a conſiderable time, becauſe both the parents muſt contribute to the ſupport of the young; whereas, among certain beaſts, it is over immediately after the act of coition, the care of the offspring being entirely left to the mother. Of what kind our commerce with the female is in the natural ſtate, whether we be of thoſe animals which Linnaeus calls *bigamous;* that is to ſay, which pair for the propagation of the ſpecies, and continue jointly their care of the offspring; or whether we are not in this reſpect rather to be claſſed with the ox, the ſheep, the deer, and almoſt all the other beaſts of the frugivorous kind, is a mattter of curious inquiry, of which I ſhall ſay ſomething afterwards.

I ſhall add only one obſervation more before I conclude this chapter: That though we ſhould ſuppoſe that men herded together before they entered into civil ſociety, yet I think it is impoſſible to believe, that,

while they only herded together, they ever could invent a language, which could only be the fruit of that ſtrict intercourſe produced by the political life. Our buſineſs therefore at preſent is, to inquire how the political life began.

CHAP. III.

Examples from antient and modern Hiſtory of Men living in the Britiſh State, without Arts or Civility.

BUT, before I enter upon this inquiry, I think it proper to ſupport the account I have given of the original ſtate of human nature, both with reſpect to *rationality* and *ſociety*, by facts as well as by arguments: For it is very different from the notions commonly received, and will no doubt appear incredible to thoſe who have been taught, that man is by nature a rational, as well as a ſocial and political animal, and have read large volumes on the ſubject of the *law of nature*, founded all upon the ſuppoſition that civil ſociety, or the political

life, is the *original* and *natural* ſtate of man. I have already given ſundry examples of ſolitary ſavages who have been found at different times, in different parts of Europe, without language or arts of any kind, and even without the erect form; and I will now proceed to ſhew, from the hiſtory both of the antient and modern world, that there have been found whole nations, not indeed altogether without arts or civility, (for that is impoſſible, ſince, according to my hypotheſis, they aſſociated together only for the purpoſe of carrying on ſome joint work), but with ſo little of either, that we can be at no loſs to ſuppoſe a prior ſtate, in which there were none at all.

And I will begin with inſtances furniſhed me by an antient author, namely Diodorus Siculus, who was a traveller as well as an hiſtorian, and whoſe work, the greateſt part of which is unhappily loſt, was the fruit of the labour of thirty years, which he ſpent in collecting materials, and travelling into thoſe countries that he had occaſion to mention in his hiſtory *. I am the more inclined to lay weight upon

* *Diodor. Biblioth. lib.* 1. *in initio.*

the facts recorded by him, that his ſtyle is very plain and ſimple; ſo that he appears to me to have ſpent that time in preparing and digeſting the *matter* of his hiſtory, which many hiſtorians, antient as well as modern, have ſpent in adorning their *ſtyle*. In the beginning of his hiſtory, he ſays, that men at firſt lived diſperſed, and ſubſiſted upon the natural productions of the earth; that they had no uſe of ſpeech, and uttered only inarticulate cries; but that having herded together, for fear, as he ſays, of the wild beaſts, they invented a language, and impoſed names upon things *. This opinion of the original ſtate of man he no doubt formed from the ſtudy of many antient books of hiſtory that are now loſt. But, beſides this, he relates particular facts concerning certain ſavage nations which lived, either in Africa, or upon the oppoſite coaſt of the Indian ocean, or that gulf of it which is now called the *Red Sea*. Of theſe he had an opportunity of being very well informed, by the curioſity of one of the Ptolemies, king of Egypt, who, as I mentioned before, ſent men whom he could truſt, on purpoſe

* *Lib.* 1. *cap.* 8. *edit. Weſſeling.*

to be informed concerning ſuch nations; and beſides, the paſſion he had for hunting elephants led him to diſcover more of Africa than I believe has been diſcovered in modern times.

The firſt inſtance I ſhall mention from Diodorus is of a nation, if a herd of men may be called ſo, of ἰχθυοφαγοι, or *fiſh-eaters*, who lived near the ſtrait which joins the Indian Ocean to the Red Sea or Arabian gulf, upon the Afiatic ſide. They went naked, and lived entirely by fiſhing, which they practiſed without any art, other than that of making dikes or mounds of ſtones, to prevent the fiſh which had come with the full tide into the hollows and gullies upon that coaſt, from going out again with the ebbing tide, and then catching them in thoſe ponds as in a net *. In this way they employed themſelves for four days, and the

* This is preciſely the way of fiſhing practiſed by the inhabitants of New Holland, as deſcribed by Dampier in his Travels. This Dampier appears to me to be one of the moſt accurate and judicious of our modern travellers; ſo that, when we find him agreeing in his account of the cuſtoms of barbarous nations, with an antient hiſtorian, whom I am perſuaded he never read, nor perhaps ever heard of, we can hardly doubt of the truth of the fact.

fifth day they all ſet out for the upland country, where there were certain ſprings of freſh water, of which they drank, after having filled their bellies with fiſh. This journey, ſays our author, they performed juſt like a herd of cattle, making a great noiſe, and uttering loud cries, but all inarticulate; and, after having filled their bellies with water, ſo that they could hardly walk, they returned to their habitations upon the coaſt, and there paſſed a whole day incapable to do any thing, lying upon the ground, and hardly able to breathe through fulneſs; after which they returned to their only occupation, of fiſhing in the manner above deſcribed: And this was the round of their life. The women and children were common, belonging to the herd. They had no ſenſe of what is juſt, honeſt, or decent, living entirely under the guidance of inſtinct and appetite. They had no arts, unleſs we give that name to their way of fiſhing above mentioned, and a certain method which they had of curing and preſerving their fiſh, very particularly deſcribed by Diodorus. They uſed no weapons except ſtones, and the ſharp horns of goats, with which they killed the ſtronger fiſh,

They had no uſe of fire, but roaſted their fiſh upon the rocks by the heat of the ſun. Neither do they appear to me to have had the faculty of ſpeech; for, though our author does not expreſsly ſay ſo, yet I think it is his meaning, from the account he gives of their journey to the ſprings; and it is clear that they had nothing like religion or government *.

The next nation he mentions is that of the *Inſenſibles* †, as he calls them, of whom I have already ſpoken. Of theſe he ſays expreſsly, that they had not the uſe of ſpeech, but made ſigns, like our dumb people, with their heads and hands. They lived, he ſays, promiſcuouſly with other animals, and particularly with ſeals, which, he ſays, catch the fiſh in the ſame manner that theſe men did, who were alſo of the race of fiſh-eaters; and he adds, that they lived with thoſe other animals, and with one another, with great good faith, and in great peace and concord. The moſt extraordinary particular he tells concerning them is, that they never uſed water, nor any kind

* *Diod. lib. p.* 106. *Stephani.*

† Ἀναισθητοι.

of liquid, not having ſo much as an idea of that ſort of nouriſhment *; though even this, I think, is leſs incredible than what more than one modern traveller has told us of people in the South Sea, that, when they had occaſion to be long at ſea, ſupplied the want of liquids by drinking ſea-water.

The next nation mentioned by Diodorus, that I ſhall take notice of, is one upon the African ſide, in that part of Ethiopia which is above Egypt. They were of a quite different race, being what he calls ὑλοφαγοι, or *wood-eaters*; for they ſubſiſted entirely upon the woods, eating either the fruits of the trees, or, when they could not get theſe, chewing the tender ſhoots, and young branches, as we ſee cattle do in this country. This way of living made them very nimble in climbing trees; and they leapt, ſays our author, with amazing agility, from one branch or one tree to another, uſing both feet and hands; and, when they happened to fall, their bodies were ſo light that they received no hurt †. They too went

* *Diod. lib.* 3. *p.* 108.

† The wild girl, whom I mentioned above, muſt have been of a race of people very like this mentioned by Diodorus: For ſhe climbed trees like a ſquirrel, and leapt

naked, had no arms but ſticks, like the Orang Outangs, who are ſtill to be found on the ſame continent, and their wives and children were in common. *Diod. p.* 111.

Diodorus concludes his account of thoſe ſavage African nations, by telling us, that, in the ſouthern part of that great peninſula, there are races of men, who, in the human form, live a life altogether brutal. *p.* 115.

Thus far Diodorus Siculus; from whoſe account it is evident, that there were in Africa, and the oppoſite continent of Aſia, in his time, herds of people that lived without any civil ſociety, even the domeſtic ſociety

from one branch to another, upon all-four, with wonderful agility, as I was informed by the people of the village of *Songé* in *Champaigne*, where ſhe was caught: And ſhe ſtill retained, when I ſaw her, a mark of the uſe of her hands as feet in leaping; for her thumbs were of an unuſual breadth. When ſhe happened to fall, too, ſhe was ſo light and nimble that ſhe received very little hurt. For the Abbeſs of the convent of *Chalons*, (near to *Songé*), where ſhe was confined for ſome time after ſhe was taken, ſhewed me a very high window from which ſhe leapt into the ſtreet, without receiving much harm; and what ſhe did receive, ſhe imputed to the groſs aliment they had given her, which ſhe ſaid had made her ſo much heavier than when ſhe lived upon wild food.

of man and wife, which is the firſt ſtep towards forming a ſtate or political ſociety.

With Diodorus, in this account of the ſavageneſs and barbarity of the people of Africa, agrees Herodotus; a man of the greateſt curioſity and diligence, and whoſe authority may be depended upon, when he relates a thing ſimply as an hiſtorical fact, and not as a hearſay. He ſpeaks of herds of people in this peninſula that coupled together promiſcuouſly (νεμονται) like cattle, *lib.* 4. *c.* 180.; and of men and women abſolutely wild, *lib.* 4. *c.* 191.; and, particularly, of the Troglodytes he ſays, that they fed upon ſerpents and other reptiles, were hunted like wild beaſts by the Garamantes, and by way of language made a kind of murmuring inarticulate ſound, which he compares to the cry of a bat, *ibid. c.* 183. And it is not unlikely that it is the ſame kind of language that Monſ. de la Condamine reports to have been ſpoken by a nation that he met with upon the banks of the river Amazons: For it was a muttering murmuring kind of noiſe, as he has deſcribed it, and which appeared to him to be formed by drawing in the breath; probably becauſe it was a low and obſcure ſound, not unlike

that which a man makes who is very hoarſe by reaſon of a cold *.

As to modern authorities, I will begin with that of Leo Africanus, an African Moor of the ſixteenth century, who, coming to Rome, did there abjure the Mahometan faith, and was baptized by the name of the pontiff who then filled the papal chair, Leo X. He had travelled much in the interior parts of Africa with caravans of merchants, and appears to me to have known more of that country than any modern. He wrote a deſcription of it in Arabic, which is tranſlated into Latin, and publiſhed in nine books, containing a very accurate account, both of the men and manners, and natural

* There is a race of men yet to be found in that part of antient Ethiopia that we call *Abyſſinia*, whoſe language reſembles ſtill more that of the *Troglodytes*, as deſcribed by Herodotus; for it makes a hiſſing kind of noiſe, very fitly expreſſed by the Greek word τριζω, (in Latin *ſtrideo*), which Herodotus applies to the language of the *Troglodytes*, and which I ſuppoſe reſembles the ſound made by a bat. Of theſe people in Ethiopia, Linnaeus, as I was informed by one of his ſcholars, had an account from two travellers who had been in that country at different times; and both agreed in this, and ſeveral other particulars concerning thoſe men. See *Linnaei Syſtema Naturae*, *vol.* 1. *p.* 33.

curioſities of the country: And he agrees with Diodorus as to the ſavageneſs of ſome of the people of Africa; and, particularly, he ſays, that, in the inward parts of the country, ſouthward from Barbary, there are people that live a life entirely brutiſh, without government or policy, copulating promiſcuouſly with their females, after the manner of the brutes *. And he mentions another nation, to whom he gives a name, calling them *Bornians*, who lived not far diſtant from the fountain of the river Niger. Theſe people, ſays he, are without religion of any kind, and have their women and children in common †.

The next modern author I ſhall mention is likewiſe a very diligent and accurate writer. It is Garcilaſſo de la Vega, who has written in Spaniſh the hiſtory of the *Incas* of Peru, of whoſe race he himſelf was ‡. According to his account of that country, when the firſt Inca began his conqueſts, or rather

* *Lib.* 7. *in initio.*

† *Ibid. p.* 656.

‡ He was born, as he informs us, eight years after the Spaniſh conqueſt of Peru was compleated. His mother was the grand-daughter, if I miſtake not, of the *Inca* that preceded him who was dethroned and put to death by

his taming or civilization of men, (for he was a conqueror of that kind, ſuch as the Egyptians report their Oſiris to have been); it was inhabited, for the greater part, by men living in a ſtate altogether brutiſh, without government, civility, or arts of any kind; and ſuch of them as were in any degree civilized, had a tradition preſerved among them, that they had been taught, as the ſubjects of the Incas were, by men, who came from diſtant countries, and imported among them the arts of life. And, more

the Spaniards. He was brought up among his relations of the Inca race, till he was twenty years of age; and from his mother and her brothers, as he tells us, he received information of the facts which he relates in his hiſtory. He alſo employed his ſchool-fellows the Indians, after he had formed the deſign of writing it, to get him information from all parts of the country. His hiſtory, therefore, I think, may be credited as much as any that is only from tradition; which, however, this hiſtory was not altogether; for they had a kind of records by threads and knots. And, indeed, the facts he relates, and his manner of relating them, bear intrinſic marks of truth, at leaſt, that no falſehood or fiction was intended. And, with reſpect to the principal facts, we may believe a tradition that went no farther back than four hundred years; about which time the firſt *Inca*, *Manco Capac*, began his reign; eſpecially when it was preſerved in the family of that prince, and we may believe carefully preſerved, and the more carefully that they had no written records.

particularly, he relates, that, in ſome parts of Peru, which were afterwards civilized by the Incas, the people were under no kind of government, living together in herds or flocks, like ſo many cattle or ſheep, and, like them, copulating promiſcuouſly *. In other parts of the country, they did not ſo much as live in herds, but dwelt in caves, and holes of rocks and mountains, in ſmall numbers of two or three together, feeding upon herbs, graſs, roots, and wild fruits, and copulating promiſcuouſly †. And, in later times, under the fourth or fifth Inca, he mentions a people in the great province of *Chiribuana*, who lived altogether like beaſts, wandering in the mountains and woods, without religion or worſhip of any kind, and without any community or political government, unleſs when they aſſociated to infeſt their neighbours, and make uſe of them for food; for the end of their wars was to eat their enemies. Theſe people were ſo brutiſh, and the country of ſo difficult acceſs, that the Inca gave over thoughts of conquering or civilizing them; and the Spaniards afterwards attempted it, but without ſucceſs, *lib.* 7. *c.* 17. He mentions alſo another people of the ſame province, that lived near the Cape of *Paſſau*, who, never ha-

* *Lib.* 1. *c.* 5 *et* 6. † *Ibid. c.* 7.

ving been conquered, or rather civilized, by the Incas, lived, even at the time the author wrote, in a ſtate of the utmoſt ſavageneſs and barbarity, having no religion at all, and worſhipping nothing either above or below them; inhabiting caves, and hollows of trees, without communication, friendſhip, or commerce, and hardly having language ſufficient to underſtand one another *. One of the Incas, he ſays, coming with an army to ſubdue them, but deſpairing of being able to reclaim them from their brutiſh life, ſaid to his people, "Come, let us return again; "for theſe deſerve not the honour of our do- "minion." Upon which the whole army faced about, and returned home †. And theſe people were in that ſtate of barbarity, or very little better, at the time the author wrote; for he ſays he himſelf ſaw ſome of them ‡. He further tells us, that one of the Incas found men that preyed on one another like wild beaſts, attacking their fellow-creatures for no other purpoſe than to eat them. Theſe the Inca hunted on the mountains, and in the woods, like ſo many wild beaſts §.

* *Lib.* 1. *c.* 4 & 5.

† *Lib.* 9. *c.* 8.

‡ *Lib.* 9. *c.* 8.

§ *Lib.* 8. *c.* 3. See alſo *c.* 6 & 7. of the ſame book; where there are other accounts to the ſame purpoſe.

But the communication and intercourſe that has been betwixt the ſeveral parts of the old world on this ſide of the globe, and likewiſe betwixt the old and the new world diſcovered by Columbus, during theſe laſt three hundred years, has made ſo great a change in the manners and way of living of men in thoſe countries, that it is not there we are now to look for people living in the natural ſtate, but in another part of the world, as yet very imperfectly diſcovered, and with which we have had hitherto very little intercourſe, I mean the countries in the South ſea, and ſuch parts of the Atlantic ocean as have not been frequented by European ſhips. What I ſhall here ſet down of the wild people found in thoſe countries is taken from a French collection of voyages to the South ſea, printed at *Paris* in the year 1756, in two volumes 4to. The author's name, as I am informed, is *Labroſſe*.

Americus Veſpucius, who made the diſcovery of the continent of America for the King of Spain, and gave his name to it, was afterwards employed by the King of Portugal, in whoſe ſervice he made a voyage in that great ocean which extends from

Brazil eaſtward, towards the Cape of Good Hope; and in this voyage he diſcovered a great tract of country, which he calls a continent, where he found a people who, tho' living together in herds, had neither government, religion, nor arts, nor any property; and every one of them had as many wives as he pleaſed. Americus was among them ſeven and twenty days, which was long enough to have obſerved what he affirms of their manner of living. *Vol.* 1. *p.* 96. of *Labroſſe's Collection.*

Jack *the Hermit*, a Dutch traveller, affirms, that the people of Terra del Fuego live entirely like brutes, without religion, or policy, or any the leaſt regard to decency, vol. 1. p. 445. And the ſame is ſaid of them by an Engliſh traveller, Sir John Narburgh, vol. 2. p. 33. They are beſides cannibals, and have not the leaſt idea of honeſty or good faith in their dealings, vol. 1. p. 445.

Another Dutch traveller, one *Roggeveen*, came to an iſland in the South ſea, where he could not find out that the people had any kind of government; but ſome way or other they had got a religion, in which they were very zealous, and truſted to it for

their defence, in place of arms, againſt the Europeans, vol. 2. p. 235.

Many people in thoſe countries have been found without almoſt any of the arts of life, even the art of defending themſelves, or attacking their enemies; for but few of them have been found that have the uſe of the bow and arrow. Moſt of them, like the Orang Outangs, uſe nothing but ſticks and ſtones; and the laſt mentioned people, who had ſo much religion, uſed no arms at all. Sir Francis Drake diſcovered certain iſlands in the South Sea, to the north of the line, where he found inhabitants who had the nails of their fingers about an inch long, which he underſtood ſerved them for offenſive arms, vol. 1. p. 197. And Le Mere met with a people in New Guinea, who uſed their teeth as an offenſive weapon, and bit like dogs, vol. 2. p. 396. and 397. Among ſuch a people, if there was any government or civil ſociety, it muſt have been very imperfect, and of late inſtitution.

This is all, ſo far as I have obſerved, that has hitherto been diſcovered in the South Sea concerning the natural ſtate of men there. But we have reaſon to expect from thoſe countries, in a ſhort time, much greater

and more certain diſcoveries, ſuch as I hope will improve and enlarge the knowledge of our own ſpecies as much as the natural hiſtory of other animals, and of plants and minerals.

From the South Sea I will come back again to Africa, a country of very great extent, in which, if it were well ſearched, and the interior parts of it diſcovered, I am perſuaded that all the ſeveral ſteps of the human progreſſion might be traced, and perhaps all the varieties of the ſpecies diſcovered. I have already ſtated what I have learned both from antient and modern authors, concerning barbarous nations inhabiting that country, and I will now communicate to the public a piece of intelligence from thence relating to our ſubject, which I received, ſince publiſhing the firſt edition of this volume, from a man whoſe veracity and exactneſs is well known to all thoſe who are acquainted with him. And indeed, the ſimple, plain, and accurate manner in which he tells his ſtory, is ſufficient to convince every one who hears him of the truth of it. His name is Peter Greenhill, doctor of phyſic, reſiding at preſent in the north of Scotland. He was ſixteen years employed in the African trade, du-

ring ten of which he reſided conſtantly in the country, and learned the language of one of the nations on that coaſt. He ſays, he was well informed of a nation inhabiting to the eaſtward of Cape Palmas, whoſe language was ſo rude and imperfect, that they were obliged to ſupply the defects of it by ſigns and geſtures; and therefore could not underſtand one another in the dark. He further ſays, that he knew one Gregory, a captain of a ſhip, who was in uſe to trade for ſlaves in the river Gaboon, oppoſite to the Iſland of St Thomas, where the Portugueſe have a ſettlement: That he ſaw this Captain Gregory at Fort Cape Coaſt, upon his return from a voyage to this river, when he told him, and ſeveral other gentlemen, that there was a ſavage people inhabiting the inland country, above the mouth of the river Gaboon, who did not live in ſociety, had no uſe of language, and were hunted like wild beaſts, by the more civilized nations in their neighbourhood, taken and ſold for ſlaves to the Europeans: That he and the reſt of the company laughed at this ſtory as altogether incredible: Upon which the captain ſaid, that he had two of them then on board his ſhip, whom he would ſhew to them: That he

had got them from the natives at the mouth of the river; but, as he was well acquainted with them, and had gained their love by making them preſents, they did not impoſe upon him, as they frequently did upon other Europeans, by ſelling them as ſlaves, but gave them in a preſent, telling him that they did not believe they were men but monkies, becauſe they could not ſpeak. The next day after this converſation, the Doctor ſaw them. They were two girls about the age of eleven or twelve, of the human form in every reſpect, with the features, complexion, and woolly hair of the natives of the country, and the look and behaviour of human creatures: That they got ſlaves of different nations to ſpeak to them; but they underſtood nothing of what they ſaid, nor did they ſpeak to one another while the Doctor ſaw them; and the captain told him, that all the while they were on board his ſhip, which was three weeks, they did not, even in their intercourſe with one another, utter one articulate ſound, as far as he heard or could learn: That they are well known to the Portugueſe, and called by them *Bouraas*, that is, beaſts of burden: That, ſome days thereafter, Cap-

tain Gregory ſold them, with other ſlaves, to the captain of a Dutch veſſel. The Doctor added, that, for his part, after ſeeing them, he had not the leaſt doubt of their being men, and he ſays the captain was of the ſame opinion; for he ſaid, that, being aſked by one of the natives at the mouth of the river Gaboon, whether he believed them to be men? he told them, he thought they were men as much as either of them was.

From the account given by this gentleman, we may ſee the progreſs of language among ſavages. Firſt, we have a number of wild men not aſſociated, or at leaſt not living in ſo cloſe an intercourſe of ſociety as is neceſſary for the invention of language, and therefore without the uſe of ſpeech. And we may obſerve how ſurpriſingly this ſtory told by Dr Greenhill agrees with the account above mentioned given by Herodotus, of the Troglodytes, inhabiting the ſame country of Africa, who were likewiſe hunted by the neighbouring nations like ſo many beaſts, and, inſtead of ſpeaking, made a noiſe like that of a bat. Nor is it to be wondered, that the negroes at the mouth of the river Gaboon, and the Doctor himſelf and his companions, at firſt believed them

to be monkies, not men, becauſe they did not ſpeak, proceeding upon the vulgar error, that language is natural to man; and that therefore whatever animal does not ſpeak, is not a man. But, among other things belonging to the men of that country, it is to be obſerved that they had woolly hair, which none of the monkey race, as far as I can learn, have. Next, we have a people that had learned a little articulation, but not ſo much as to communicate their thoughts to one another, without the help of the natural language of ſigns. The next ſtep is to what may be called a language, very rude and imperfect indeed, but ſuch as is ſufficient for communication, with little or no help from action or geſture: Of this kind is the language of the Hurons in North America, and other barbarous languages, of which I ſhall ſpeak in the ſequel. And, laſt of all, comes the language of art, which is the ſubject of the ſecond volume of this work.

Before I conclude this article of travels, I will quote one traveller more, very little known, but who reports an extraordinary fact concerning our ſpecies, which I will relate as a matter of curioſity, though it be-

long not to my ſubject, except in as far as it tends to give us more enlarged views of human nature, without which I am ſenſible that what I have ſaid, and ſhall further ſay, of the natural ſtate of man, will appear whimſical and ridiculous. The name of this traveller is *Keaping*, a Swede by birth, who, in the year 1647, went to the Eaſt Indies, and there ſerved on board a Dutch ſhip of force, belonging to the Dutch Eaſt-India company, in quality of Lieutenant. In ſailing through thoſe ſeas they had occaſion to come upon the coaſt of an iſland in the gulf of Bengal, one of the Nicobar iſlands *, where they ſaw men with tails like thoſe of cats, and which they moved in the ſame manner. They came in canoes along-ſide of the ſhip, with an intention to trade with the Dutch, and to give them parrots in exchange for iron, which they wanted very much. Several of them came aboard the ſhip, and many more would have come;

* It is to be obſerved, that there are ſeveral iſlands of this name lying in a ſtring at the north end of Sumatra. We are not, therefore, to imagine, that our Swediſh traveller is convicted of a lie by other travellers, who have touched at ſome one of theſe iſlands, and have not found men with tails.

but the Dutch were afraid of being overpowered by their numbers; and therefore they fired their great guns, and frightened them away. The next day they ſent aſhore a boat with five men; but they not having returned the following night, the day after the Captain ſent a larger boat aſhore with more hands, and two pieces of cannon. When they landed, the men with the tails came about them in great numbers: by firing their cannon they chaſed them away; but found only the bones of their companions, who had been devoured by the ſavages; and the boat in which they had landed they found taken to pieces, and the iron of it carried away.

The author who relates this is, as I am well informed, an author of very good credit *. He writes in a ſimple plain manner, not like a man who intended to impoſe a

* The ſtory is told in the 6th volume of Linnæus's *Amœnitates academicæ*, in an academical oration of one *Hoppius*, a ſcholar, as I ſuppoſe, of Linnæus, who relates the ſtory upon the credit of this Keoping, with ſeveral other circumſtances beſides thoſe I have mentioned. As I knew nothing then of any other author who had ſpoken of men with tails, I thought the fact extraordinary, and was not diſpoſed to believe it, without knowing who this

lie upon the world, merely for the ſilly pleaſure of making people ſtare; and if it be a lie, (for it cannot be a miſtake,) it is the only lie in his book; for every thing

Keoping was, and what credit he deſerved. I therefore wrote to Linnaeus, inquiring about him, and deſiring to know where his book was to be found. He returned me a very polite anſwer, informing me, that the book was lately reprinted at Stockholm, 1743, *apud Salvium*; that the author was, "natione Suecus, ſecutus naves Belgi-"cas per plures annos, imprimis ad inſulas Indiae Ori-"entalis. Incepit iter 1647. Erat Lieutenant navalis rei. "Habet multa de animalibus et plantis ſparſa, ſimplici "ſtylo; ſed omnia reliqua quae retulit de his, ſimplici-"tate et fide ſumma recenſet; quorum omnia reliqua "hodie notiſſima et confirmata."

Upon this information I got the book from Stockholm. It is in the Swediſh language, which I do not underſtand; but that paſſage of it having been tranſlated to me by a Swediſh gentleman, I found it to agree exactly with the ſtory told by Hoppius. And the gentleman, who was very well acquainted with the book, confirmed what Linnaeus ſays, of its being written in a plain and ſimple ſtyle, bearing intrinſic marks of truth.

As this is a matter of great curioſity, I will ſubjoin what Linnaeus further ſays in his letter to me.

"2. *Bontius*, longius poſt eum, (Keoping,) vidit ipſe ho-"mines caudatos et nocturnos.

"3. *Geſnerus* et *Aldrovandus* habent ex antiquis ſimilem figuram caudati.

"4. Opus iſſud Chinenſe, lingua et ſtylo Chinenſi, cum "figuris, 30 vol. 8vo, quod poſſideo et ſiſtit fideliter "multas et plantas et animalia, idem depingit."

elſe that he has related of animals and vegetables has been found to be true. I am ſenſible, however, that thoſe who believe that men are, and always have been, the ſame in all ages and nations of the world, and ſuch as we ſee them in Europe, will think this ſtory quite incredible; but for my own part I am convinced, that we have not yet diſcovered all the variety of nature, not even in our own ſpecies; and the moſt incredible thing, in my apprehenſion, that could be told, ſuppoſing there were no

" 5. *Rumphius* habuit per plures annos vivum hominem " nocturnum, quem aluit. Auctor fidiſſimus vocat eum " *Cacutlack*.

" 6. *Brad*, mercator vivus, qui diu, per ſeptennium, vix, " it in Malacca, ſiquis alius, vir gravis, candidus, et ſin- " cerus, vidit hominem nocturnum, et deſcripſit in fami- " liari colloquio; omnia, quae ego novi antea, ita ſincere, " ut de ejus fide dubitare nequeam, mihi retulit.

" Et nocturnus et caudatus recti incedunt; caudatus " non loquitur.

" *Dalin* fuit informator Principis noſtri haereditarii, " vir infinita eruditione et ſapientia. Hic edidit oratio- " nem quam habuit coram Soc. Reg. Acad. Scient. in " qua de his agit.

" *Montpertuis*, epiſtola Gallica, Berolini, ad Regem Bo- " ruſſiae, de his multum agit.

" Unius oculati teſtimonium, quod vidit, pluris mihi " eſt, quam centum negantium ideo quod non viderunt."

facts to contradict it, would be, that all the men in the different parts of the earth were the ſame in ſize, figure, ſhape, and colour. I am therefore diſpoſed to believe, upon credible evidence, that there are ſtill greater varieties in our ſpecies than what is mentioned by this traveller: For, that there are men with tails, ſuch as the antients gave to their ſatyrs, is a fact ſo well atteſted that I think it cannot be doubted *. But our Swe-

* See *Linnaei Syſtema Naturae, vol.* 1. *pag.* 35, and *Buffon's Natural Hiſtory.* Thoſe who have not ſtudied the variety of nature in animals, and particularly in man, the moſt various of all animals, will think this ſtory of men with tails, very ridiculous; and will laugh at the credulity of the author for ſeeming to believe ſuch ſtories: But the philoſopher, who is more diſpoſed to inquire, than to laugh and deride, will not reject it, at once, as a thing incredible, that there ſhould be ſuch a variety in our ſpecies, as well as in the ſimian tribe, which is ſo near of kin to us.—That there have been individuals in Europe, with tails, is, I think, a fact inconteſtible. Mr Maillet, the author of the deſcription of Egypt, a man of great curioſity and obſervation, affirms, in a work that he calls *Tellliamed*, that he himſelf ſaw ſeveral men of that kind, whom he names, and of whom he gives a particular account. And I could produce legal evidence, by witneſſes yet living, of a man in Inverneſs, one *Barber*, a teacher of mathematics, who had a tail, about half a foot long; which he carefully concealed during his life; but was diſcovered after his death, which happened about twenty

diſh traveller, ſo far as I know, is the only one who ſpeaks of tails of ſuch length as thoſe of the inhabitants of Nicobar.

years ago. Nor will any man, who knows the ſtructure of the human body, and the nature of a tail, which is nothing elſe but an elongation of the rump-bone, be ſurpriſed that this ſhould ſometimes happen. Verheyen, a learned anatomiſt, in the account he gives of the *os coccygis*, or rump-bone, ſays, That 'os coccygis referre quaſi 'parvam caudam; quae tamen naturaliter non apparet ex'trinſecus, ſicut in pecudibus et aliis quibuſdam brutis. Re'ferunt equidem Diemerbroeck et Harvey, ſe vidiſſe homi'nes, qui hoc loco caudam gerebant exterius eminentem, 'ad pedis longitudinem, quibus indubie os coccygis fuit 'compoſitum ex officulis multis.' When we look to Diemerbroeck, we find a very particular account of a fact of this kind, in his anatomy, *lib. de oſſibus, p.* 929. *edit. Ultrajecti* 1672. *et* 584. *edit. Lugdun.* 1683.—'Hoc coccygis os,' ſays he, 'ſi extrorſum incurvatum in longitudine exereſcat, 'fit cauda, qualem, anno 1638, in infante recens nato, 'ad ſemi-ulnae longitudinem, vidimus, omnino ſimilem 'caudae cercopitheci, ſeu ſimiae caudatae; a qua beſtia 'mater, ſecundo tertiove ingravidationis menſe, ut ipſa'met nobis narravit, exterrita fuerat. Cum talibus villoſis caudis homines, in quibuſdam Indiae locis, com'muniter naſci, teſtis eſt Plinius, Nat. hiſt. lib. 7. cap. 2. 'Etiam Paulus Venetus, lib. 3. Itinerar. cap. 18. ſcribit, 'in regno Lambri, homines ſylveſtres in ſylvis inveniri, 'qui caudas habent, ut canes, longitudinis unius palmi. 'Horum teſtimonia plurimum confirmat Harvaeus, de 'gener. animal. exercit. 4. hac hiſtoria: Chirurgus quidam, vir probus, mihique familiaris, ex India Orientali 'redux, bona fide mihi narravit, in inſula Borneae, lo-

That theſe animals were men, as they trafficked, and uſed the art of navigation, I think cannot be denied. It appears, that

'cis a mari remotioribus et montoſis, naſci hodie genus 'quoddam hominum caudatum, (uti olim alibi accidiſſe 'apud Pauſaniam legimus;) e quibus aegre captam vir- 'ginem (ſunt enim ſylvicolae) ipſe vidit, cum cauda car- 'noſa, craſſa, ſpithamae longitudine, inter clunes reflexa, 'quae anum et pudenda operiebat. Uſque adeo velari ea 'loca voluit natura.'

The only queſtion, therefore, that can be in this matter is, Whether this ſurgeon, mentioned by Diemenbroeck, can be credited, who ſays, that he ſaw, in the iſland of Borneo, one of a race of men, (*genus hominum*,) with tails; or whether it be only a variety of the individual, and what we would call a monſtroſity, not a variety belonging to the ſpecies, and ſuch as goes to the race. And if it had been found in only one or two individuals, it might have been accounted of the laſt kind. But, as it has been found in ſo many different parts of the world, I think it is at leaſt probable (if there were nothing more in the caſe) that it is a ſpecific variation, and that there is a race or nation of men with tails. For as this variety has been found in women as well as men, if two of this kind ſhould go together, I think it can hardly be doubted that the children would likewiſe have tails. The like happens in the caſe of men with ſix fingers, ſome of whoſe children have commonly that peculiarity, even when they match with women who have the ordinary number of fingers. (See the obſervations that Maupertuis has made upon this ſubject, in his Letters.) And if two *ſexdigitaires*, as Maupertuis calls them, ſhould go together, I think it cannot be doubted that the whole race would have that variety. If in this manner tails ſhould be continued in the race, then there would be families, and at laſt nations of tailed men. And ſo

they herded together, and lived in ſome kind of ſociety; but whether they had the uſe of language or not, does not appear

it would be what I call a *variety of the ſpecies*, not of the individual only. And that it truly is ſo, I think is a fact ſufficiently atteſted. One of thoſe tailed men mentioned by Mr Maillet, was a black, whom he ſaw at Tripoly, and who informed him that he was from the iſland of Borneo in the Eaſt Indies, where he ſaid the moſt of the men and women had tails. And with this account agrees, not only what the ſurgeon, mentioned by Diemerbroeck, ſays, but alſo what Bontius, a learned phyſician of Batavia, relates, in his Natural Hiſtory, *lib.* 5. *cap.* 32. of a kingdom in that iſland, where many of his countrymen had ſeen, at the court of the king, men with tails. His words are: "Porro, in "inſula Borneo, in regno *Succodana* dicto, a noſtris mer- "catoribus propter oryzam et adamantes frequentata, "homines montani caudati in interioribus regni inveni- "untur; quos multi e noſtris in aula regis Succodanae "viderunt. Cauda autem illis eſt prominentia quaedam "oſſis coccygis, ad quatuor aut paulo amplius digitos "excreſcens; eodem modo quo truncata cauda, (quos "nos *ſpligiones* vocamus,) ſed depilis." Gemelli Carreri, in his Travels, relates, that, in Manilla, and the other Philippine Iſlands, there are negroes to be ſeen with tails from four to five inches long, *tom.* 5. *pag.* 68. *Paris edit.* 1719. *Buffon, hiſt. natur. tom.* 3. *pag.* 401. And the ſame author ſays, that he was told by certain Jeſuits, men whom he could believe, that there was in the iſland of Mindora, near to Manilla, a race of men called *Manghiens*, who had all tails, from four to five inches long; and that ſome of theſe men had been converted to the catholic faith. *Ibid. tom.* 5. *pag.* 92. *Buffon, ubi ſupra.* And John Struys, in his Travels, relates, that he himſelf ſaw, in the iſland of Formoſa, a man with a tail, more than a foot long, all covered with red hair, and

from our author's relation: And I ſhould incline to think that they had not, and that in this reſpect they reſembled the Orang

very like the tail of an ox; and that this man told him, that all thoſe in the ſouthern part of this iſland had tails of the ſame kind. *Struys's Travels, tom. 1. pag.* 101. printed at *Rouen* 1719.—*Buffon, ubi ſupra, pag.* 403.

That the reader may have in one view every thing that I know upon this ſubject, I will mention ſome Hetruſcan vaſes, in which men are repreſented with long tails, like thoſe of the inhabitants of Nicobar. See the collection of the Count de Caylus, *tom.* 2. *plate* 23. and 29. Thoſe vaſes are of very high antiquity, many of them older, it is believed, than the foundation of Rome. And, I think it is probable that the men with tails painted upon them were not creatures of the imagination, (for from whence ſhould ſuch a fancy have come?) but creatures that then really exiſted, as much as the animals that we ſee repreſented in Egyptian ſculpture, ſuch as the *cynocephali*, or dog-headed men or monkies, (call them how you pleaſe,) reſembling the Egyptian god called by Virgil *latrator Anubis*, and ſuch as the *ſphinxes*, I mean the Egyptian Sphinxes, not the winged Sphinx of the Grecian poets. See what Dr Tyſon has collected upon this ſubject, in his appendix to the diſſection of the Orang Outang, *pag.* 38. and 56. If more antient authorities, upon this ſubject, are wanted, we have that of Ptolomy, in his geography, who ſpeaks of the inhabitants of certain iſlands in his time, who had tails. And if we will connect antient authorities with modern, we have that of Marco Paolo, the Venetian, who travelled in the Eaſt, in the twelfth century; and relates, that, in the kingdom of Lambry, there are men inhabiting the mountains, who have tails as long as a palm. See *Buffon, ibid. pag.* 403. and the paſſage from Diemerbroek, above quoted.

Outangs, though in other reſpects they appear to have been farther advanced in the arts of life; for I do not think that any traveller

All theſe authorities notwithſtanding, Mr Buffon ſeems not to believe that there are any men with tails exiſting. We cannot, he ſays, believe entirely what Struys has ſaid. He has exaggerated: He has copied Marco Paolo, and Gemelli Carreri, and Ptolomy, *ibid. p.* 403. Mr Buffon, however, appears to believe in another variety of our ſpecies, much more extraordinary, and ſuch as, I believe, is not to be found in any other ſpecies of animal; I mean, that of men with one leg very much bigger than the other, which, he ſays, is to be found in a nation ſomewhere in India; *ibid. pag.* 414; and this not the effect of diſeaſe, but a peculiarity which they have from their birth.

Notwithſtanding, therefore, the authority of Mr Buffon on the other ſide, theſe facts, atteſted by ſo many different authors, antient and modern, fully convince me of the exiſtence of men with tails. If, however, the reader ſhould ſtill have any doubt, he muſt, I think, at leaſt, allow the matter to be problematical; and, like every other variety of our ſpecies, well deſerving to be inquired into, unleſs, perhaps, he be of the number of thoſe philoſophers who ſet bounds to Omnipotence, and pronounce deciſively, that man with ſuch variations cannot exiſt. This dogmatical ſpirit has gone ſo far in the age in which we live, that many will not believe that there is in our ſpecies the common variation of great and ſmall, from the ſize of ten or eleven feet, to that of two or three. As to the firſt, Mr Hawkſworth, in the introduction to the late Collection of voyages round the world, has fairly ſtated the evidence on both ſides; by which I think it is proved, as much as a fact of that kind can well be, unleſs we

has ſaid, that the Orang Outangs practiſe navigation or commerce. They live however in ſociety; act together in concert, particularly in attacking elephants; build huts, and no doubt practiſe other arts, both

ſhall ſet mere negative evidence againſt poſitive, that men of ſuch a ſize are to be found in the ſouthern parts of the ſouth continent of America. And that there were once Pigmies in Africa, is poſitively averred by a very diligent inquirer into the hiſtory of animals, I mean Ariſtotle. *Hiſtor. animal. lib.* 8. *c.* 12. This Ariſtotle relates, upon information which he thought could be depended upon. But one *Nonnoſus*, who was ſent ambaſſador to Æthiopia by the emperor Juſtinian, ſaw himſelf, in his travels to that country, very little men, whom he deſcribes particularly. See *Photii Biblioth. cod.* 3. *p. m.* 7. And I have little doubt, but that the Jockos or ſmall Orang Outangs are of this Pigmy race of men.

The ſame ſpirit of unbelief in the variety of nature's works, appears to have poſſeſſed ſome of the authors of antiquity, particularly Strabo, who rejects, as fabulous, what ſeveral authors, whom he names, had related of extraordinary varieties of our ſpecies that were to be ſeen in India; ſuch as the στηθοφθαλμοι, or men with eyes in their breaſt; the μονοσκελεις, or men with one leg. *Lib.* 15. *p. m.* 489. and *lib.* 2. *p.* 48. But even ſuch ſtories we ought not raſhly to reject, as abſolutely incredible, eſpecially ſuch of them as agree with modern accounts. Now, Sir Walter Raleigh has told us, that he was informed of a people in ſouth America, who had their eyes in their breaſts; and an Eſquimaux girl, who was taken priſoner by the French in Canada, after ſhe had learned to ſpeak French, related that ſhe had ſeen a whole nation of men with but one leg,

for ſuſtenance and defence: So that they may be reckoned to be in the firſt ſtage of the human progreſſion, being aſſociated, and practiſing certain arts of life; but not ſo far advanced as to have invented the great art of language; to which I think the inhabitants of Nicobar muſt have approached nearer, (if they have not already found it out), as they are ſo much further advanced in other arts.

This ſtory is told both by Charlevoix, in his account of Canada, and by the author of Telliamed, *p.* 254.; who adds, that the girl, after having been ſeveral times examined and re-examined, ſtood conſtantly to the truth of the ſtory. In ſhort, a modeſt inquirer into nature, will ſet no other bound to the variety of her productions, than that which Artſtotle has ſet, in that famous maxim of his, adopted, I ſee, by Mr Buffon, *Quicquid fieri poteſt, fit. Every thing, that can exiſt, does exiſt;* and every thing can exiſt, that does not imply a contradiction. We ought, therefore, to liſten to credible evidence concerning the exiſtence of any animal, however ſtrange, unleſs we can take upon us to pronounce deciſively, that it is impoſſible by nature that ſuch an animal ſhould exiſt.

CHAP. IV.

Of the Orang Outang—The Account Buffon and Linnæus give of him examined.

AS I have ſo often mentioned this race of animals, I think it proper to give here a more particular account of them than I have hitherto done; being, according to my hypotheſis, a barbarous nation, which has not yet learned the uſe of ſpeech. This opinion, I know, will appear very ſingular to many, and will give offence to ſome, as highly derogatory, according to their notions, from the dignity of human nature. But as I do not write to flatter the vanity or prejudices of any man, I will fairly examine the queſtion, and begin with ſtating the facts, as they are collected by Mr Buffon, in his natural hiſtory, vol. 14. And, firſt, with reſpect to his body, there has been an accurate diſſection made of it by two Engliſh anatomiſts, Mr Tyſon and Mr Cooper; and from their obſervations, joined with ſome of his own, Mr

Buffon pronounces, that, as to his body, he is altogether man, both outſide and inſide, excepting ſome ſmall variations, ſuch as cannot make a ſpecific difference betwixt the two animals, and I am perſuaded are leſs conſiderable than are to be found betwixt individuals that are undoubtedly of the human ſpecies. And, more particularly, he has, ſays Mr Buffon, the tongue, and the other organs of pronunciation, the ſame as thoſe of man; and the brain is altogether of the ſame form and the ſame ſize. He and man are the only animals that have the viſcera, ſuch as the heart, the lungs, the liver, the ſtomach and inteſtines, exactly of the ſame ſtructure; and they alone have buttocks and calfs of the leg, which make them more proper for walking upright, than any other animal, *pag.* 61 *. Then there is the

* Mr Tyſon ſays, that his Orang Outang, when he went upon all-four, which was but rarely, walked upon the nuckles, or rather upon the firſt joints of the fingers of his hands; from which, I think, he very juſtly infers, that he was not by nature intended to go conſtantly upon all-four, but only upon occaſion, or a preſent ſhift. For if it had been his uſual way of walking, he would have placed the palms flat to the ground, as all other animals do the ſoals of the feet, and thereby he would have been rendered better able to bear his weight. *Tyſon's Orang Outang, p.* 79.

ſame variety of ſize among them that is in our ſpecies; for ſome of them are from ſix to ſeven feet, and others of them do not exceed three feet. Of this laſt kind appears to have been the one diſſected by the Engliſh anatomiſts, and in general all thoſe that have ever been ſeen in Europe: So that, for any thing we know, the great Orang Outang may be ſtill more like men ſuch as we. In ſhort, according to Mr Buffon, the Orang Outang reſembles man more in the ſtructure of his body, than he does even the apes and baboons, with whom he is commonly ranked; and therefore, ſays he, the Indians are excuſable for having aſſociated him with the human race, under the name of *Orang Outang*, which ſignifies, in their language, *a wild man*, pag. 62.

As to the relations of travellers concerning this animal, I will begin with that of Bontius, who was firſt phyſician in Batavia, and has written a learned natural hiſtory of India, in which he relates, that he ſaw ſeveral Orang Outangs, of both ſexes, walking erect; and he particularly obſerved the female, that ſhe ſhewed ſigns of modeſty, by hiding herſelf from men whom ſhe did not know. And he adds, that ſhe wept and

groaned, and performed other human actions: So that nothing human ſeemed to be wanting in her, except ſpeech. His words are: 'Quod meretur admirationem, 'vidi ego aliquot utriuſque ſexus erecte incedentes, imprimis, (cujus effigiem hic exhibeo), ſatyram femellam, tanta verecundia ab 'ignotis ſibi hominibus occulentem; tum 'quoque faciem manibus (liceat ita dicere) 'tegentem, ubertimque lacrymantem, gemitus cientem, et caeteros humanos actus 'exprimentem; ut nihil humani ei deeſſe 'diceres, praeter loquelam. Nomen ei indunt 'ORANG OUTANG, quod HOMINEM 'SYLVAE ſignificat.' *Bont. Hiſt. Natur. Ind. cap.* 32. *pag.* 84. *et* 85.

The next authority I ſhall quote, is that of Purchas, in his collection of voyages, who reports, upon the credit of one Battel, whom he ſaw and converſed with, that there is, in Africa, an animal, which he calls *Pongo*, reſembling a man in every reſpect, only that he is much bigger, and like a Giant: That they walk always upright, and are armed with ſticks, with which they attack even elephants, and drive them out of their woods. They live upon fruits only, and

eat no fleſh: That they ſleep in trees, and make huts, to defend themſelves againſt the ſun and rain; and, when one of them dies, the reſt cover the body with a heap of branches and foliage. He ſays there are two kinds of them, the one he calls *Pongo*, which is as tall, and much thicker than a man; and, the other he calls *Enjocko*, or *Jocko*, who is much leſs than a man. He ſays, that they cannot ſpeak; but have more underſtanding than the other animals. He adds, that Battel told him, that they had carried off from him a little negroe boy, who came back to him again, after ſtaying a year with them, without ſuffering any harm. This is only an abridgement of what Purchas ſays. The paſſage may be ſeen at large, in Purchas's Pilgrims, part 2. book 7. chap. 3. * And two other travellers, Boſman and Gauthier Schoutten, ſaw this animal likewiſe, and give in general pretty much the ſame account of him; adding, that he is very fond of women, whom they always attack when they meet with

* There is a circumſtance which Buffon has omitted in Purchas's narrative, and which gives the more credibility to it, that he himſelf ſaw that negroe boy of Battel's, who had been a year with the Orang Outangs.

them in the woods. And Dampier, Froger, and other travellers, affirm that they frequently carry away young girls; and that it is with the greateſt difficulty that they can be reſcued from them. *Buffon, vol.* 14. *pag.* 49. *et* 50.

The next authority I appeal to is, that of Gaſſendi the philoſopher, who having advanced, upon the credit of one St Ammand, a traveller, that there were, in the Iſland of Java, apes reſembling men; and the fact being denied, M. Peireſc produced, in defence of Gaſſendi's aſſertion, a letter from Mr Noëlle, a phyſician, who was then living in Africa. Mr Buffon, p. 47. has quoted the very words of the letter; the ſubſtance of which is, that, in Guinea, there are apes (ſo he calls them) of great ſize, to which he gives the name of *Barris* *. They have

* This is the name by which they are known in the country; and, I think, this muſt be the animal meant by Horace, where, ſpeaking of a lewd woman, he ſays,

Quid tibi vis, mulier, nigris digniſſima barris?

By *barri* all the commentators that I have conſulted, underſtand *Elephants*; but this is certainly not the meaning, as neither the epithet *black* agrees to an elephant, nor the known character of that animal for chaſtity, make ſuch a conjunction proper. And, beſides the diſproportion betwixt

long white beards, which give them a venerable appearance; and they walk with gravity and compoſure. They excell in judgement and intelligence, and learn every thing very readily; (for, in place of *docendi*, I read *diſcendi*, the ſenſe ſo requiring.) When they are clothed, they immediately walk erect; and they play very well upon the pipe, harp, and other inſtruments. The females among them have their monthly courſes; and the males have a great deſire for women. Mr Buffon quotes three other travellers, Darcos, Nieremberg, and Dapper, *pag.* 48. as giving the ſame account of theſe *Barri*; and he quotes a fourth, *p.* 57. one Francis Pyrard, who ſpeaks of their great docility, ſaying, that, if they are caught, and taught when they are young, they learn to perform all domeſtic offices, and, particularly, to carry water; and, if they let fall, and break the veſſel, they fall a crying. And

the ſize and ſhape of a woman and an elephant, is ſo great, that we cannot ſuppoſe, that ſo correct a writer as Horace would have uſed ſo extravagant an hyperbole. Whereas an animal, ſuch as the Phyſician Noëlle deſcribes, would make a very fit match for a lewd woman. This is a criticiſm which I owe to my learned and worthy friend Sir John Pringle, preſident of the Royal Society.

with him, he ſays, concurs one father Jarric, who ſays the ſame thing, almoſt in the ſame words.

The next traveller I ſhall quote, is a countryman of Mr Buffon, Mr de la Broſſe, who made a voyage to Angola in 1738. *Pag.* 50. he ſays, that theſe Orang Outangs, whom he calls by the name of *Quimpezes*, being probably the name which the natives of Angola gave them, are from ſix to ſeven feet high. They carry away young negroe girls, and keep them for their pleaſure: And, he ſays, he knew one negroe girl that had been with them three years. They make to themſelves huts; and the weapon they uſe is a ſtick, *p.* 51. Mr de la Broſſe ſays further, *p.* 55. that he purchaſed from a negroe, two young Orang Outangs, one of which was a male, fourteen moons old, and the other a female of twelve moons. He carried them aboard the ſhip with him; and he ſays, that they had the inſtinct (by which he means, as Buffon rightly underſtands him, that they had not been taught by the negroe, from whom he bought them) to ſit at table; to eat of every thing; to make uſe of the

ſpoon, knife, and fork; and drink wine and other liquors. They contrived to make themſelves underſtood to the cabin-boys; and when they did not give them what they wanted, they fell into a paſſion, ſeized them, bit them, and threw them down to the ground. The male, he ſays, fell ſick while they were on the road, and made himſelf to be treated like a ſick perſon. He was twice blooded, and afterwards, when he ailed any thing, he held out his arm, and made ſigns that they ſhould bleed him; as if he had known, ſays our author, that the blooding had done him good. Mr de la Broſſe does not tell us what became of theſe two young Orang Outangs: But, it is clear, from the account he gives of them, that they muſt have been taken from among animals that had arrived at ſome degree of civility and cultivation. Or, ſuppoſing, what Mr de la Broſſe does not ſuppoſe, that they had learned from the negroe, of whom he purchaſed them, all thoſe things, which he ſays they did; it muſt at leaſt be owned, that, if they were not men, they had the docility belonging to our ſpecies.

Another authority quoted by Mr Buffon, *p.* 56. is that of an Engliſh traveller, one

Harry Groſs, who relates, that, ſomewhere upon the coaſt of Coromandel, there were two of the little kind caught, ſcarcely three feet high, the one a male, and the other a female, and given in a preſent to Mr Horn, the governor of Bombay. That they were entirely of the human form, and their action was, for the greater part, that of a man: That they made their bed in the box in which they were put, with great care; and, when they were looked at, they concealed with their hand, thoſe parts, which modeſty forbids to ſhew. They were ſenſible of their captivity, and appeared, on that account, melancholy. The female died on board a ſhip, which afflicted the other ſo much, that he abſtained from food, and ſurvived his companion but two days. And we may obſerve, that this account which our Engliſh traveller gives of their modeſty, agrees perfectly with Bontius's relation.

And, that we may have the authority of an Italian, as well as a French and Engliſh traveller, I ſhall quote, from Mr Buffon, *p.* 58. the teſtimony of Gemelli Carreri, who ſays, that theſe apes, ſo he calls them, ſeem to have more wit than men in certain reſpects. For, when the fruits upon the moun-

tains fail, they come down to the ſhore, where they find oyſters of a great ſize, weighing ſeveral pounds. Some of theſe lie open upon the beach: But, for fear they ſhould ſhut, and catch them while they are taking out the oyſter, they put in a ſtone, which prevents that danger; and ſo they take out the oyſter, without any riſk.

The laſt teſtimony, from Buffon, I ſhall mention, is that of Buffon himſelf, who ſays, *Pag.* 53, that he ſaw one of the ſmall kind, who walked always upon two; and, in that, and all his movements, was grave and compoſed. He was of a ſweet temper, and, in that reſpect, very different from the ape or monkey kind; for he did every thing that he was deſired to do, by ſigns or words; whereas thoſe of the other kind did nothing, but from the fear of blows. He gave his hand to thoſe who came to ſee him, in order to ſhew them the way out; walked with them with great gravity, as if he had been of their company; and when he was ſet at table, he behaved, in every reſpect, like a man, not only doing what he was bid, but often acting voluntarily, and without being deſired.

To theſe authorities, I will add that of a creditable merchant in Briſtol, ſtill living,

who formerly was captain of a ſhip trading to the ſlave coaſt of Africa, and made ſeveral voyages thither. His ſon ſucceeded him in the command of the ſhip, and ſtill continues that trade *. The account which he

* The letter from this merchant which is here inſerted, was procured me by Mr Bell, who was governor of Fort Cape-Coaſt in Africa for ſeveral years, and is now living in Scotland. The letter is as follows:

'Of this animal there are three claſſes or ſpecies; the 'firſt and largeſt is, by the natives of Loango, Malemba, 'Cabenda, and Congo, called or named Impungu. This 'wonderful and frightful production of nature walks 'upright like man; is from 7 to 9 feet high, when at ma-'turity, thick in proportion, and amazingly ſtrong; cover-'ed with longiſh hair, jet black over the body, but long-'er on the head; the face more like the human than 'the Chimpenza, but the complexion black; and has no 'tail. When this animal ſees a negroe, it moſtly purſues 'and catches them; it ſometimes kills them, and ſome-'times takes them by the hand, and leads them along 'with him. Some that have made their eſcape ſay, that 'this animal, when it goes to ſleep, does not lie down, but 'leans againſt a tree. In this poſition, when the priſoner 'finds it aſleep, he ſteals away his hand or arm ſoftly 'from his, and ſo ſteals away quietly, ſometimes diſcover-'ed and retaken. It lives on the fruits and roots of the 'country, at the expence chiefly of the labour of the 'natives; and when it happens to be where there is no 'water, there is a tree, with a juicy bark, which it ſtrikes 'with its hand, bruiſes, and ſucks the juice; and ſome of 'this tree it often carries with it when it travels, in caſe it 'ſhould not find it, or water, by the way. And indeed I have

gives of this animal is, in ſubſtance, that there are three kinds of them, a greater, a leſſer, and one that is of a middle ſize between the two. The greater he calls *Im-*

'heard them ſay, that it can throw down a palm tree, by 'its amazing ſtrength, to come at the wine. I never ſaw 'this animal; but there was a young one brought down 'from the inland-country to the King of Malemba, 'which is next to Cabenda, while my ſon was there. 'The people that brought it down ſaid, it was quiet and 'compoſed, the ſeveral months they had it, eating, and 'taking its victuals and drink quietly. It was brought 'down with a yoke about its neck, and its hands tied, like 'the other ſlaves that came with it, and came down 'quietly. But, when it came to the King's town, ſuch ama-'zing crowds came to ſee it from all quarters, it grew 'ſullen and ſulky, for being ſo expoſed, would eat no 'victuals, and died in four or five days. It was young, 'about ſix feet and a half high. I have never ſeen this 'animal, nor my ſon; but he, in his laſt voyage, ſaw the 'hand of one of them, cut off about four inches above 'the joint of the wriſt. It was dried and withered; yet, 'in that ſtate, its fingers were as big as three of his, or 'bigger than his wriſt, rather longer than the proportion 'of ours; and the part where cut off, in that wrinkled 'ſtate, bigger than the biggeſt part of his arm, the upper 'part of the fingers, and all the other parts, covered with 'black hair; the under part like the hand of a negroe. 'It is ſaid to be the ſtrongeſt of all the beaſts in the 'wood; and all are affraid of it. I have not heard of 'this animal any where but on the coaſt of Angola.

'The Chimpenza, as the natives call it, the third and 'ſmalleſt claſs of this ſpecies, reſembles the other in ſhape,

pungu, the ſame, no doubt, that, by other travellers is called *Pongo*. This kind walks always upright, and is from ſeven to nine feet of ſtature, which is a greater height, by two feet, than any other traveller has mentioned. Neither he nor his ſon ever ſaw

' only ſmaller, and walks oftener on all four than upright.
' We ſcarce know when this animal comes to a ſtate of
' maturity, or the common period or length of its life.
' I am informed, the females have their times like women. I
' had one on board, of the male ſex; but it was very young.
' My ſon had a ſhe-one aboard his ſhip laſt voyage. The
' natives that brought it down, ſaid it was three years old;
' but there was no appearance of the menſes in the time
' he had it on board, which was three or four months.
' It is ſaid of this animal, that they aſſociate in commu-
' nities, and build little towns or villages; that, when their
' houſes are finiſhed, they immediately leave them, and
' go to building more, never chuſing to ſleep but as few
' nights as poſſible in one place. They have their games
' and paſtimes like the natives; and it is ſaid they have a
' King who does not work himſelf, but orders. This ani-
' mal, when taken young, and uſed to the natives in their
' dwellings, does not like to ſtir out of doors after dark;
' nor can they force it. One, at Serraleon, in my time,
' when the women uſed to go out to gather ſticks,
' went with them, and gathered its bundle; and, when
' they went for water, carried its pitcher or jar, and
' brought it home full with the reſt. It is covered with
' a longiſh hair, jet black, the hair on the head longeſt,
' and ſhaded in the middle to each ſide; the complection
' of the face rather darker than the mulattoe; the face
' flattiſh; a large wide mouth, almoſt from ear to ear, ſmall

this extraordinary animal, who, according to his information, is only to be ſeen in the kingdom of Angola: But his ſon, he ſays, in his laſt voyage, ſaw the hand of one of them cut off, a little above the wriſt, which, though dry and withered when he ſaw it,

' flattiſh noſe, longiſh chin, eyebrows and forehead like ' ours, and good regular teeth like ours; makes comical ' grimaces with its face, and in its face is moſt like to the ' moſt ugly old mulattoe woman you ever ſaw, but ugli- ' er. Its face cannot help exciting laughter; and I have ' heard the natives ſay, if they are laughed at, they take it ' to heart; which I believe is the reaſon why ſcarce one ' of them can be brought home alive. My young one I ' got at Serraleon, I could keep alive only three months; ' and this might be the cauſe of his untimely end; as a ' friend of mine, that reſided there many years, told me, ' that the natives aſſured him, that, if they were laughed ' at and made game of, they certainly took it to heart ' and died. My anſwer to him was, if that was the caſe, ' they muſt die; for it was impoſſible to look at them ' without laughing. This animal I have only ſeen at ' Serraleon and the coaſt of Angola, never on the Gold ' Coaſt; the Impungu I have never heard of, but on the ' coaſt of Angola. The Chimpenza, at its full growth, is ' from two to three feet high on all-four; is very ſtrong, ' much ſtronger than man in proportion, as appears by ' a droll adventure that happened near Cabenda, with ' one of theſe animals, a little before my ſon was there ' laſt. As the women in that country do moſtly the work of ' the field, one of them told her huſband, that ſomething ate ' the corn and the ſugar canes. He accordingly gets up next ' morning, loads his gun; and ſeeing ſome of theſe ani-

was ſo much larger than the hand of an ordinary man, that it muſt have belonged to an animal of no leſs ſize than nine feet, or perhaps greater. And the gentleman who procured me this information (Mr Bell) told me, that he knew an Engliſh ſurgeon, who

'mals among the corn, fires among them, and wounds 'one, which happened to be a female. The huſband, a-'larmed at its cries, and exaſperated, purſues the man, 'who had juſt time to get into his houſe, and ſhut the 'door, before the Chimpenza came up with him. It 'ſoon burſt open the door, ſeized the man, drags him 'out and hauls him along. The wife cries out and a-'larms the neighbours, ſaying an old man with a white 'face, which the Chimpenza reſembled, had run away 'with her huſband. They gathered as many as they 'could, and as ſoon, to reſcue the man; but the Chim-'penza had got him near to where his wife was, before 'they came up, and would not let him go till they had 'ſhot him dead. This man uſed to come to the factories, 'and goes by the name of the Chimpenza, and I ſuppoſe 'will as long as he lives. This animal lives chiefly or al-'together on the fruits of the country, ſuch as plantains, 'bananas, palm nuts, ſugar canes, and ears of corn, 'which they roaſt as the natives do. I aſked how they 'made their fire; was told, they take a ſtick out of the 'black people's fire that are at work in the field, and ſo 'make their own. When a he one catches a black wo-'man, it commonly forces, and lies with her; if there are 'ſeveral, they all do it, it ſeems, in their turns.

'The Itſena is a ſpecies betwixt the two former, leſs 'than the Impungu, and larger than the Chimpenza; like 'the Chimpenza in every reſpect, unleſs in ſize. They keep

meaſured the body of one of them that was above eight feet. His body is covered with black hair, but the hair of his head longer. He is amazingly ſtrong, and the terror of the woods which he inhabits, living altogether upon the fruits of the earth. They

'to themſelves, the Chimpenza and they not agreeing.
'N. B. all the three ſpecies have no tail.'

It may be obſerved, that the writer of this letter ſays, that the Orang Outangs, when they want water, ſatisfy their thirſt by ſucking the juicy bark of a certain tree. Gabriel Sagard, a French traveller in North America, of whom I ſhall have occaſion to make frequent mention afterwards, ſays the ſame of the Hurons, a people of North America p. 126.

This letter-writer, by what he ſays of the Orang Outang throwing down palm trees, in order to come at the wine, ſeems to ſuppoſe that the juice of the fruit is a vinous liquor without fermentation. If ſo, he is a bad chymiſt; and thoſe who are reſolved not believe that the Orang Outang is a man, will, from this miſtake, ſuſpect his veracity and accuracy in matters of fact, which he muſt have underſtood. And thoſe who preſume, I do not know upon what ſyſtem of philoſophy, to limit the power of creation in the nobleſt, as well as moſt various work of God here below, to ſix or ſeven feet of ſtature, will, I know, upon the credit of their hypotheſis, either reject altogether the letter-writer's narrative, or boldly aſſert that this animal of nine feet is a gigantic monkey, not a man. But to thoſe, who have already decided this queſtion, and therefore are not diſpoſed to inquire, I do not write.

purſue the negroes when they ſee them, and ſometimes kill them; at other times they make priſoners of them, and lead them off by the hand. One of themſelves was taken, and brought with ſome negroe ſlaves to the capital of the kingdom of Malemba. He was a young one, but ſix feet and a half tall. Before he came to this city, he had been kept ſome months in company with the negroe ſlaves, and during that time was tame and gentle, and took his victuals very quietly; but, when he was brought into the town, ſuch crowds of people came about him to gaze at him, that he could not bear it, but grew ſullen, abſtained from food, and died in four or five days. The little one, which he calls *Chimpenza*, appears to have the ſame ſenſe of honour. For, if they are laughed at, they take it ſo much to heart, that they languiſh and die, as the natives aſſured him; and he had one of them himſelf aboard his ſhip, who died, as he imagines, for that reaſon, in three months. And he tells a ſtory of one of them, which ſeems to ſhew that they have a ſenſe of juſtice as well as honour. For a negroe having ſhot a female of this kind that was feeding among his Indian corn, the male, whom our author calls

the huſband of this female, purſued the negroe into his houſe, of which having forced open the door, he ſeized the negro and dragged him out of the houſe, to the place where his wife lay dead or wounded, and the people of the neighbourhood could not reſcue the negroe, nor force the Chimpenza to quit his hold of him, till they ſhot him likewiſe. If he had ſeverely beaten or killed the negro, it was nothing more than what might have been expected from brutal fury and revenge; but the dragging him to the place where his mate lay dead could not, in my apprehenſion, be with any other deſign, but to ſhew him what he had done, and then, perhaps, offer him up to the *manes* of the dead. It is reported, ſays our author, that theſe Chimpenzas live together in communities, build little towns or villages, are governed by a king that does not work, and have their games and paſtimes as well as the negroes. So far at leaſt is certain, that, if they have a ſenſe of honour and juſtice, they muſt likewiſe be a political animal. Their height, when upon all-four, is betwixt two and three feet; ſo that we may ſuppoſe their height, when they ſtand erect, to be about double that; and their ſtrength appears,

from the above mentioned ſtory, to be greater, than that of an ordinary man. The middle ſpecies he calls *Itſena*. They are greater than the Chimpenza, and leſs than the Impungu. They herd by themſelves, not mixing with either of the two other kinds.

Such is the account, which this gentleman gives of the ſeveral kinds of the Orang Outang; and I truſt the more to the facts related by him, that he ſets out upon an hypotheſis different from mine, viz. that the Orang Outang is not a man, but a ſpecies betwixt man and monkey. This at leaſt makes me ſure, that he does not violate truth, in favour of my hypotheſis.

The ſubſtance of all theſe different relations is, that the Orang Outang is an animal of the human form, inſide as well as outſide: That he has the human intelligence, as much as can be expected in an animal living without civility or arts: That he has a diſpoſition of mind, mild, docile, and humane: That he has the ſentiments and affections peculiar to our ſpecies, ſuch as the ſenſe of modeſty, of honour, and of juſtice; and likewiſe an attachment of love and friendſhip to one individual, ſo ſtrong in ſome in-

ſtances, that the one friend will not ſurvive the other: That they live in ſociety, and have ſome arts of life; for they build huts, and uſe an artificial weapon for attack and defence, viz. a ſtick; which no animal, merely brute, is known to do. They ſhew alſo counſel and deſign, by carrying off creatures of our ſpecies, for certain purpoſes, and keeping them for years together, without doing them any harm; which no brute creature was ever known to do. They appear likewiſe to have ſome kind of civility among them, and to practiſe certain rites, ſuch as that of burying the dead.

It is from theſe facts that we are to judge, whether or not the Orang Outang belongs to our ſpecies. Mr Buffon has decided that he does not. Mr Rouſſeau inclines to a different opinion. The firſt ſeems to be ſenſible of the weight of the facts againſt him, and particularly what Bontius, the Batavian phyſician, relates. But Bontius, ſays he, has exaggerated. He was prejudiced; and, if we retrench from his narrative what he has ſaid of the modeſty of the Orang Outang female, there will remain nothing but an ape, of which we have more accurate deſcriptions from other authors. *Ibid. p.* 46.

If we are in this way to treat the teſtimony of a learned phyſician and naturaliſt, I do not know how any fact of natural hiſtory can be proved. But why does he not reject, for the ſame reaſon, the authority of a countryman of his own, Mr Noëlle, likewiſe a phyſician; and who reports what is ſtill more extraordinary than what Bontius relates of this animal, and indeed incredible, upon the ſuppoſition of his being a monkey, not a man, namely, the learning to play very well upon the pipe, harp, and other inſtruments of muſic? Why not that of Mr de la Broſſe, likewiſe his countryman? Why not that of Henry Groſs, our countryman? Why not that of Battel and Purchas, from whom he has taken his diviſion of this ſpecies of animal into great and ſmall, calling the great *Pongo*, and the ſmall *Jocko? Ibid. p.* 49. beſides ſeveral others whom I have not mentioned, particularly, one Mr Guat; who relates that he ſaw, in Java, and brought along with him in the ſhip, a female, whom he is pleaſed to call an ape; who ſhewed the ſame marks of modeſty that the female Orang Outang did, mentioned by Bontius, by covering with her hand what the antients thought it was proper the

Goddeſs of love ſhould conceal, in the ſame manner; and beſides, performed ſeveral other human actions, ſuch as, making her bed, covering herſelf with the bed-cloaths, binding her head with a handkerchief, when ſhe had a headach? *Ibid. pag.* 57. *et* 58. If ſuch actions as theſe, and others mentioned by other travellers, whom I have quoted, are not the reſult of human intelligence, I do not know how we are to diſcover it from actions: And if we do not believe facts proved by ſuch a concurrence of teſtimony, not only of common travellers, but of learned phyſicians, I repeat it again, I do not know how any fact of natural hiſtory is to be proved.

There are ſome of our naturaliſts, who have attended ſo much to facts, and dealt ſo much in experiment, that they ſeem to have given up their reaſon altogether; for they will believe nothing, but what is proved by the evidence of ſenſe. There are others, who have gone to a contrary extreme; and having formed ſyſtems without facts, adjuſt the facts to their prejudicated opinions, believing juſt as much of them as ſuits their purpoſe, and no more. Of this number, I take Mr Buffon to be, who has formed to himſelf a definition

of man, by which he makes the faculty of ſpeech a part of his eſſence and nature; and having thus defined man, he boldly avers, that the ſtate of pure nature, in which man had not the uſe of ſpeech, is a ſtate altogether ideal and imaginary, and ſuch as never had any real exiſtence. *Ibid. p.* 36.

This definition of man is very different from that given by antient philoſophers; none of whom ever dreamed, that any thing elſe was eſſential to man, except reaſon, and intelligence, to which, if we pleaſe, we may add, as ſome of them did, the human form. And I hope, I have ſo far ſupported the opinion of my maſters, as to have ſhewn, beyond the poſſibility of doubt, that articulation is not natural to man. And indeed, I will venture to ſay, that any man who believes the contrary, either does not underſtand the nature of this ſo artificial operation, and thinks, like the mere vulgar, that, becauſe he performs it ſo eaſily, therefore it is natural to him; or he muſt be underſtood to ſpeak of man, in another ſtate of exiſtence, more perfect, and with faculties much ſuperior to thoſe which he enjoys at preſent.

Mr Buffon does not ſay, in ſo many words, that articulation is as natural to man as the animal operations of breathing, digeſting, and moving; tho' I think he muſt be underſtood to believe ſo, in order to make him conſiſtent with himſelf. But he ſays, that, if we could ſuppoſe a mother without the uſe of ſpeech, ſhe would, in the ſpace of three years, which, he thinks, is the time neceſſary to nurſe and rear a child, form a language, by the intercourſe which ſhe muſt neceſſarily have with the child. *Ibid. pag.* 36. If this be true, Mr Buffon is undoubtedly right in the concluſion which he draws from it, That, as the Orang Outangs have have not invented a language, they are not men: For the fact cannot be doubted, that the Orang Outang mothers nurſe their own children, tho' I think it may be very juſtly doubted, whether they require ſo long tendance from the mother, as the ſpace of three years. But, if there be any truth in what I have endeavoured to eſtabliſh, this ſuppoſition of Mr Buffon, that a language would be invented in three years, by the intercourſe betwixt a mother and a child, is moſt wild and extravagant, and plainly ſhews, that, however much Mr Buffon may

have ſtudied facts of natural hiſtory, he has not conſidered language as a philoſopher. And he appears to me not even to have ſufficiently attended to a fact, that falls under daily obſervation, I mean, the commerce betwixt a mother and her child, which, among the brutes, muſt of neceſſity be carried on by inarticulate cries, or by ſigns and geſtures; and is likewiſe ſo carried on for the greater part among us. For, tho' the mother or nurſe, being in the habit of ſpeaking, and commonly much inclined to ſpeak, have a great deal of converſation with the child; yet I believe Mr Buffon will not pretend, that the child underſtands this converſation, at leaſt for the firſt two years. And the fact moſt undoubtedly is, that, whatever a child, when it is very young, learns by the voice of the mother, is from her inarticulate cries, of which they uſe a great many. Here, then, we have a language invented by a mother or nurſe, in the ſpace of no more than three years, without any the leaſt neceſſity; as it is evident, that the whole buſineſs could be carried on, without any ſuch communication betwixt the parties, which, for the greater part of the time, would be

altogether impracticable. But, ſuppoſing the invention to be of ſome uſe, how ſhall we reconcile this great facility of inventing a language, with what Mr Buffon ſays in another place, (*ibid. p.* 35.) of the great difficulty of learning a language after it is invented, tho' the learner have the advantage of both imitation and inſtruction? The ſame word, ſays he, muſt be repeated to an infant, a thouſand and a thouſand times, before he can learn to pronounce it; and, before he can apply the ſound, after he has learned it, to its proper object, that object muſt be preſented to him a thouſand and a thouſand times likewiſe. If it be ſo difficult for the child, even by imitation and inſtruction, to learn a language, how is it poſſible to ſuppoſe, that the mother, in the ſpace of three years, ſhould have invented it? Or, if we could ſuppoſe, that the mother had capacity for ſo wonderful an invention in ſo ſhort a time, how can we ſuppoſe, that, while ſhe was occupied with the care of nouriſhing and preſerving her child, ſhe would be at the trouble of inventing what was altogether uſeleſs for her child? If we can believe this, we muſt likewiſe believe, that a ſavage, altogether

ſolitary, would invent a language, for which he had no uſe.

If, therefore, language be not eſſential to man's nature, nor of ſo eaſy acquiſition, that it will reſult from the natural operation of a mother nurſing her child; it follows, of conſequence, that there was a time when men did not ſpeak. Now, I deſire to know, in that ſituation, what would be the criterion and diſtinguiſhing mark of difference, betwixt men and the Orang Outang, in his preſent ſtate? Nay, I will go further; and I deſire any philoſopher to tell me the ſpecific difference betwixt an Orang Outang ſitting at table, and behaving as Mr de la Broſſe or Mr Buffon himſelf has deſcribed him, and one of our dumb perſons; and, in general, I believe it will be very difficult, or rather impoſſible, for a man, who is accuſtomed to divide things according to ſpecific marks, not individual differences, to draw the line betwixt the Orang Outang and the dumb perſons among us. They have both their organs of pronunciation, and both ſhew ſigns of intelligence by their actions, with this difference, no doubt, that our dumb perſons, having been educated among civilized men, have more intelligence.

But how is it poſſible, from this difference only of greater or leſs, and which can be ſo well accounted for, to conceive them to be of different ſpecieſes?

Thus I have endeavoured to ſupport the antient definition of man, and to ſhew that it belongs to the Orang Outang, though he have not the uſe of ſpeech. And indeed it appears ſurpriſing to me, that any man, pretending to be a philoſopher, ſhould not be ſatisfied with the expreſſion of intelligence in the moſt uſeful way, for the purpoſes of life, I mean by actions; but ſhould require likewiſe the expreſſion of them, by thoſe ſigns of arbitrary inſtitution we call *words*, before they will allow an animal to deſerve the name of *man*. Suppoſe that, upon inquiry, it ſhould be found, that the Orang Outangs have not only invented the art of building huts, and of attacking and defending with ſticks, but alſo have contrived a way of communicating to the abſent, and recording their ideas by the method of painting or drawing, as is practiſed by many barbarous nations, (and the ſuppoſition is not at all impoſſible, or even improbable); and ſuppoſe they ſhould have contrived ſome form of government, and ſhould elect kings or rulers, which is poſſible, and, according to

the information of the Briſtol merchant above mentioned, is reported to be actually the caſe, what would Mr Buffon then ſay? Muſt they ſtill be accounted brutes, becauſe they have not yet fallen upon the method of communication by articulate ſounds?

But, as I muſt admit, that, if the Orang Outangs be men, they have at leaſt the capacity of learning to ſpeak by imitation, what ſhall I ſay to the other ſet of philoſophers that I mentioned, who will believe nothing but what is proved by fact, and conſequently will not believe that the Orang Outang could be taught to ſpeak, unleſs he were actually ſo taught? We will, therefore, ſay they, ſuſpend our judgement concerning the humanity of your Orang Outang, till we hear, or are credibly informed that ſome of them ſpeak.

With ſuch philoſophers, it would be in vain to argue, that, having the human intelligence, and likewiſe the organs of pronunciation, they muſt neceſſarily have the capacity of learning, by teaching and imitation, if not of inventing a language; and, if he have the capacity of learning to ſpeak, that is ſufficient to denominate him a man, though he never attain to the actual exerciſe

of the faculty; becauſe human nature, as we have elſewhere obſerved, conſiſts chiefly of capabilities. But I ſay to theſe gentlemen, *firſt*, That the experiment has never been fairly tried upon any Orang Outang that has been hitherto brought to Europe. For it does not appear that any pains were ever taken to teach any of them to ſpeak. We cannot therefore affirm that they would not learn the art, if the ſame pains were to be beſtowed upon them that Mr Braidwood beſtows upon his ſcholars.

But, 2*dly*, I ſay, that, if the experiment ſhould not ſucceed, it would not prove that the Orang Outang is not a man. For the habits and diſpoſitions of mind, and, by conſequence, the aptitude to learn any thing, are qualities which go to the race, as well as the ſhape and other bodily qualities. And it is for this reaſon, that the offspring of a ſavage animal will never be ſo tame, whatever pains may be taken upon him, as the offspring of a tame animal. And, I am perſuaded, it is with wild men, as with wild fruits, which we know will not loſe their ſavage nature at the firſt remové, but can only be tamed by continued culture for a ſucceſſion of generations. And, accordingly,

Kolben, in his account of the Hottentots, tells us, that it is not poſſible to tame a Hottentot, and reconcile him to Dutch manners, though taken quite young, and bred up in the European way; and he ſays, the experiment has been often tried, but never ſucceeded. In like manner, an Iroquois, or Huron, though taken very young, the Europeans have never been able to breed to labour or a ſedentary life. It is, therefore, not unlikely, that the child of an Orang Outang, and much leſs a grown one, would not have that diſpoſition of mind, and aptitude to learn a language which our children have. And beſides, we ought to conſider, that it is a diſtinguiſhing characteriſtic of the barbarous nations, that they are very lazy, and altogether averſe to labour, unleſs where they ſee an urgent neceſſity for it. Now, to learn to ſpeak, is a matter of great labour, as Mr Buffon himſelf acknowledges, even though we begin as early as poſſible, and have the benefit of imitation as well as inſtruction.

Laſtly, I ſay, that, in certain parts of the world, this wild man of the woods is to be found with ſome uſe of articulation. This

is atteſted by Mr Maillet, the author of the Deſcription of Egypt, who, in a work of his, entitled *Telliamed*, has collected a great many curious facts concerning the varieties of our ſpecies. In this work he relates, 'that, in 1702, the Dutch Eaſt India company ſent out two veſſels from Batavia for 'the coaſts of New Guinea, and the ſouthern countries, in order to trade and make 'diſcoveries. During that expedition, which 'was of no uſe, the Dutch ſeized two male 'animals, which they brought to Batavia, 'and which, in the language of the country 'where they were taken, they called *Orangs 'Outangs*, that is, *Men who live in the 'woods*. They had the whole of the human form, and like us walked upon two 'legs. Their legs and arms were very 'ſmall, and thick covered with hair, ſome 'of which they alſo had on the whole of 'their body, their faces not excepted. Their 'feet were flat where they are joined to the 'leg; ſo that they reſembled a piece of 'plank with a baton driven into it. Theſe 'Orangs Outangs had the nails of their fingers and toes very long, and ſomewhat 'crooked. They could only articulate ſounds 'very indiſtinctly; but were very melancho-

'ly, gentle, and peaceable. The one died 'at Batavia, and the other in the road to 'Holland, whither he was ſent as a curioſi-'ty worthy the admiration of all Europe*. Thoſe who are reſolved not to believe that the Orang Outang is of our ſpecies, will not, I know, believe this ſtory. But, for my part, I have not the leaſt doubt of it; not only from the credit that is due to this author, but becauſe I know myſelf a gentleman, who ſaw two ſuch animals as Mr Maillet deſcribes, at Batavia, who came likewiſe from New Guinea, or New Holland, and had ſome little uſe of articulation. And indeed, upon much leſs authority, I ſhould be diſpoſed to believe, that a creature, who is in every reſpect capable of ſpeaking, did actually ſpeak.

But, ſuppoſe he were no where to be found with the uſe of this faculty, I ſtill maintain, that his being poſſeſſed of the capacity of acquiring it, by having both the human intelligence and the organs of pronunciation, joined to the diſpoſitions and affections of his mind, mild, gentle, and humane, is ſufficient to denominate him a man. And it appears very extraordinary to ſuppoſe that

* *Telliamed*, Engliſh Tranſlation, p. 246.

he is of another ſpecies, not becauſe he wants any organs that we have, ſuch as the organs of ſpeech, but becauſe he does not make the ſame uſe of them; a thing which I have ſhewn is a matter of art, and not to be acquired but by men who have lived long together in cloſe intercourſe, and practiſed other arts. And, therefore, it is not to be wondered, that, if men have had no occaſion to live together in that kind of ſtrict ſociety, but have been able to ſubſiſt upon the natural fruits of the earth, with few or no arts, which is the caſe of the Orang Outang, they ſhould not have acquired a language. And thus much with reſpect to Mr Buffon's opinion concerning this animal.

I come now to examine Linnaeus's opinion. He agrees with me, that ſpeaking is not eſſential to man; for he makes the characteriſtics of the wild man to be *four-footed*, *mute*, and *rough*, or *hairy**. As to the Orang Outang, he makes him to be the ſame with the Troglodyte—calls him *homo nocturnus*—ſays that he is to be found in the countries bordering upon Æthiopia, and in the caves of Java, Amboina, and Ternatea. His colour is white; he walks erect; is of leſs ſtature than ours by a half; his

* *Tetrapus, mutus, hirſutus.* Syſtem. Nat.

eyes are of an orbicular form, with other particulars concerning his make. He lives five and twenty years. He is almoſt blind in day light, and then lurks. At night he ſees, comes out and ſteels: He makes a hiſſing noiſe in ſpeaking. He believes, the Earth was made upon his account, and that ſome time or other he is to govern it *. This animal Linnæus makes the ſame with the Orang Outang, or *homo ſylveſtris*, of Bontius. But it is impoſſible he can be the ſame with the great Orang Outang which Battel, Schouten, Mr De la Broſſe, Guat, and ſo many other travellers have ſeen. Mr Buffon thinks that he has confounded the Orang Outang with the white Negroe. But, as Linnaeus has given him the *membrana nictitans*, or film which comes over the eye,

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* 'Corpus album, inceſſu erectum, noſtro dimidio minus. Pili albi, contortuplicati. Oculi orbiculati: Iride pupillaque aurea. Palpebrae antice incumbentes, cum membrana nictitante. Viſus lateralis, nocturnus. Manum digiti in erecto attingentes genua. Ætas viginti quinque annorum. Die caecutit, latet; noctu videt, exit, furatur. Loquitur ſibilo; cogitat, ratiocinatur, credit ſui cauſa factam tellurem, ſe aliquando iterum fore imperantem, ſi unquam fides peregrinantibus multis.' *Syſt. nat. vol.* 1. *p.* 33.

as in a hawk, I think it is evident that he is not the white negroe any more than the Orang Outang, neither of which has this membrane. But the animal Linnaeus here deſcribes is, the Troglodytes of Abyſſinia, and who probably are the ſame with the Troglodytes mentioned by Herodotus. Of them I have ſpoken in a note upon the preceeding chapter, pag. 245. But I do not underſtand what Linnaeus means, when he ſays that this Troglodyte, or Orang Outang, is of the genus of man, but not of a ſpecies of men ſuch as we belong to. Nay, he will not ſo much as allow him to be a variety of our ſpecies, of which, he ſays, his having the *membrana nictitans*, and the length of his arms or hands, is a clear proof*. In the

* GENUS Troglodytae ab homine diſtinctum, adhibita quamvis omni attentione, obtinere non potui, niſi aſſumerem notam lubricam, in aliis generibus non conſtantem. Nec dentes laniarii, minime a reliquis remoti; nec nymphae Caffrae, quibus carent ſimiae, hunc ad ſimias reducere admittebant. Inquirant autoptae in vivo, qua ratione, modo notae aliquae exiſtant, ab hominis genere ſeparari queat; *nam inter ſimias verſantem opportet eſſe ſimiam. Appollodor.*

SPECIEM Troglodytae ab homine ſapiente diſtinctiſſimam, nec noſtri generis illam, nec ſanguinis eſſe, ſtatura quamvis ſimillimam, dubium non eſt; nec itaque varietatem credas, quam vel ſola membrana nictitans abſolute negat, et manuum longitudo; *vol. 1. pag. 33.*

firſt place, according to the philoſophy that I have learned, man is not a genus, but one of the loweſt ſpecies of the genus animal, below which there is nothing but individuals. He is defined by the antient philoſophers to be a *rational animal, capable of intellect and ſcience*; according to which definition, every rational animal with that capacity, whether mute or ſpeaking, black or white, great or ſmall, with round eyes or long eyes, &c. is a man. If theſe variations go to the race, I call them *variations of the ſpecies*; ſuch as that of black and white, flat noſes and thick lips, which are the differences betwixt us and the negroes. If they do not go in the race, or only ſometimes, but not conſtantly, ſuch as deformities among us, and the difference of great and ſmall, the colour of the eye, and other peculiarities of our ſtructure, I call them *variations of the individual.* If the variation is very great, and much out of the common courſe of nature, we call ſuch an individual a *monſter.* Of this kind, according to my information, is the white negroe; for he is produced of black parents; and, if he propagate at all, of which I am not ſure, he

does not beget another white negroe; ſo that there is no race of ſuch men. And the ſame I take to be the caſe of the ſpotted men, of whom Strahlemberg, the Swediſh officer, ſpeaks in his account of Siberia.

But, 2*do*, It appears to me very ſtrange, that an animal, which thinks, forms opinions, and ſpeaks, as Linnaeus has deſcribed his Troglodyte, ſhould not be of our ſpecies, but, on the contrary, perfectly diſtinct from the *homo ſapiens*, the name that he is pleaſed to give us.

It may be true, that, not having ſtudied Linnaeus's ſyſtem, I do not underſtand his method of arranging and dividing the ſubjects of natural knowledge, and perhaps I may not rightly apprehend the ſenſe of the words that he uſes. But this, I think, I underſtand, that, though it may be uſeful for the purpoſes of anatomy and natural hiſtory, to obſerve the ſeveral variations of the bodily ſtructure of animals, and to claſs them according as they have or have not *mammae*, for example, or teeth of a certain form; yet, if we will divide philoſophically, the genus of animal into its ſubordinate ſpecieſes, we muſt fix upon ſome criterion, or mark of difference, by which one animal

is eſſentially diſtinguiſhed from another; that is to ſay, I muſt chuſe a property of the animal, ſuch as is predominant in his nature, and from which the moſt of his other properties reſult. This property in man the antients underſtood to be intelligence, which, therefore, they made to be the ſpecific difference betwixt him and other animals. Now Linnaeus has followed a method very different; for he has ſeparated man from other animals by his having *mammae*, and ſo has made him a ſpecies of a great genus, which he calls the *Mammalia*, comprehending, beſides man, many other ſpecieſes, and particularly the whale, which in this way he makes akin to us. But, allowing all this to be right, what ſhall we ſay of his making a genus as well as a ſpecies of man, and ſubdividing him into two ſpecieſes, the *homo ſapiens*, and the *Troglodyte*, or *homo nocturnus?* The *homo ſapiens*, as he has characterized him, is a man ſuch as we are, with intelligence, from which he gives him his denomination, and with ſeveral variations which he has obſerved. After this, when he comes to deſcribe the Troglodyte, he gives him intelligence too; for he ſays, he thinks, forms

opinions, and ſpeaks. But he is perfectly diſtinct, ſays he, from the *homo ſapiens:* And why? becauſe he has a *membrana nictitans*, which the *homo ſapiens* has not, and longer hands or arms than we. And thus, he makes this membrane, or a greater length of hand or arm, to be a characteriſtical mark of difference betwixt two ſpecies, without ſhewing them to be properties in any degree eminent, or the foundation of any other property of the animal, external or internal, of body or mind. I muſt therefore, till I am better inſtructed, adhere to the antient method of arranging and dividing things into genus and ſpecies. If Mr Buffon had ſtudied this method ſufficiently, he never would have maintained, that an animal with the human intelligence, and having the capacity of ſpeaking, though not the actual exerciſe of it, was not a man. For good logic I hold to be the foundation of ſcience of every kind; and our philoſophers may obſerve and experiment as much as they pleaſe; yet, when they come to reaſon upon thoſe experiments and obſervations, if they have not learned that greateſt of all arts, as Ci-

cero calls it*, by which things are arranged into their ſeveral claſſes, and every more general idea divided and ſubdivided into the ſubordinate and inferior, they will fall into very great errors.

But, though I hold the Orang Outang to be of our ſpecies, it muſt not be ſuppoſed that I think the monkey, or ape, with or without a tail, participates of our nature; on the contrary, I maintain, that, however much his form may reſemble ours, yet he is, as Linnaeus ſays of the Troglodyte, *nec noſtri generis, nec ſanguinis.* For, as the mind, or internal principle, is the chief part of every animal, it is by it principally that the antients have diſtinguiſhed the ſeveral ſpecieſes. Now, it is laid down by Mr Buffon, and I believe it to be a fact that cannot be conteſted, that neither monkey, ape, nor baboon, have any thing mild or gentle, tractable or docile, benevolent or humane, in their diſpoſitions; but, on the contrary, are malicious and untractable, to be govern-

* Cicero ſpeaking of this art, ſays it is 'ars, quae docet rem univerſam tribuere in partes, latentem explicare definiendo, &c. And a little after, he calls it 'omnium artium maximam.' *Brut. ſive De clar. Orat. cap.* 41.

ed only by force and fear, and without any gravity or compoſure in their gait and behaviour, ſuch as the Orang Outang has.

But, although they have not the affections or diſpoſitions of men, it muſt be confeſſed that they have a great deal of the human ſagacity. They do not uſe a ſtick for a weapon as the Orang Outangs do, but they uſe miſſiles, and will pelt a man with nuts, or any other hard fruit. And they uſe this method of throwing, in their contrivance to rob an orchard, as deſcribed by Kolben in his account of the Cape of Good Hope.* They have ſomething too of the human faculty of imitation: But it appears to be entirely confined to mimicry, or imitation by geſtures; for they do not imitate by the voice, as man does. And this is by ſome thought to be the reaſon why they have not invented a language. But I think there are two better reaſons for it. The firſt is, that they are not capable of intellect, or of forming ideas. And, *2dly*, They do not appear to have been ever ſo cloſely united in ſociety as is neceſſary for the invention of a language. But, ſuppoſe that their capacity were greater, and

* See the paſſage quoted by Buffon, Nat. Hiſt. vol. 14. pag. 136.

that they could form ideas, it is certain that they have not the faculty of imitation by the voice, ſuch as a parrot or jackdaw has, otherwiſe they might be taught to ſpeak, as theſe animals are taught.

CHAP. V.

Continuation of the Subject—General Rules for Definition—Application of thoſe Rules to the Definition of Animals in general and of Man—That this Definition applies to the Orang Outang*—Differences between us and the* Orang Outang *accounted for.*

What is man? is a queſtion of ſuch curioſity and importance, that the reader will readily excuſe my beſtowing another chapter upon it. In order to judge of what is, or is not a proper definition of man or any other animal, we muſt know ſomething in general of the nature of definition. I will, therefore, begin with laying down ſome rules concerning it, ſuch as I have learned from the ſtudy of antient phi-

loſophy. For, as definition is the foundation of all ſcience, there is nothing more accurately treated of by the antient philoſophers, particularly thoſe of the peripatetic ſchool; nor is there any thing that Ariſtotle has beſtowed more pains upon, having treated of it with great accuracy, both in his ſecond Analytics, and in his books of Metaphyſics. The philoſophers of the preſent age have not thought it worth their while to beſtow ſo much pains upon this ſubject; and, particularly, it has been much neglected by our natural philoſophers, though, according to their method of philoſophiſing, there is nothing they ſhould have ſtudied more. The antients, in phyſics, as in every thing elſe, began with general principles, ſuch as matter, form, and motion, of which Ariſtotle has treated at great length in his eighth book of General Phyſics, entitled in Latin *De Naturali Auſcultatione* *. Of ſuch principles, arranged and put together by divine intelligence, they framed their ſyſtem of nature; whereas, in natural philoſophy, the moderns appear to me to be little farther advanced than natural hiſtory, which indeed we have made more full and complete than it was among

* Περὶ φυσικῆς ἀκροάσεως

the antients. But we have nothing that I think can be called ſcience with reſpect to natural things, except the arrangement and diſtribution of them into ſeparate and diſtinct claſſes. Now, for this, *definition* is abſolutely neceſſary, as well as *diviſion*, with which, as ſhall be ſhewn, definition is intimately connected. And yet, the two great naturaliſts of this age, Linnaeus and Mr Buffon, appear to me not to have ſtudied either ſufficiently. As to Linnaeus, if he has defined and divided properly, when he makes a genus of the animal *man*, and divides it into ſpecieſes, by ſuch ſpecific differences, as the having longer or ſhorter arms, and the having or not having a film which comes over the eye, he has learned or invented an art of definition and diviſion very different from what I have learned, or is to be found in any book of philoſophy, antient or modern, that I know. As to Mr Buffon, he rejects altogether Linnaeus's diviſions into genuſes or claſſes, and inſiſts much upon nature having only formed individuals*. But, as I have elſewhere ſhewn, there can be no ſcience of individuals, and we have no knowledge of any thing

* Hiſt. Natur. vol. 1. p. 14. Vol. 2. p. 160. Vol. 4. p. 384. et *paſſim*.

but by the genus or ſpecies to which it belongs. To be convinced of this, let any man try to deſcribe any particular object of ſenſe, and he will find, that he can do it no otherwiſe than by referring it to ſome genus or ſpecies; or, if it be a thing of a ſpecies unknown to him, he will deſcribe it by certain qualities known to him, that is, of which he has formed ideas. Thus, for example, he deſcribes the thing by a certain colour or figure, which he ſays it has; but, before he can do that, he muſt have the idea of that ſpecies of colour or figure. Nothing therefore can be known but by knowing either directly the ſpecies to which it belongs, or by knowing other ſpecieſes, which enable us to form ſome notion of the object unknown. If this be true, there can be no philoſophy or ſcience of any kind, without knowing the genuſes or ſpecieſes of things; and, as that cannot be attained without definition and diviſion, it ſhould ſeem that a good ſyſtem of logic, of which the art of defining and dividing is a principal part, is the foundation of all ſcience. As therefore the ſubject is of ſuch importance, I will ſhortly lay down the rules concerning definition and diviſion, as I have learned them

in the peripatetic ſchool, and I will apply theſe rules to the definition of man.

And, firſt, with reſpect to definition, it conſiſts, ſays Ariſtotle, of two parts, the *genus* of the thing defined, and the *ſpecific difference*. The genus is a more general idea, comprehending other ſpecieſes beſides that defined; and therefore it is common to that ſpecies, and thoſe other ſpecieſes falling under it. The ſpecific difference is that which diſtinguiſhes the ſpecies defined from thoſe other ſpecieſes; and it is common to all the individuals falling under that ſpecies, as the genus is common to all the ſpecieſes comprehended under it. And the reaſon why all definitions muſt conſiſt of a genus and a difference, has been already given in the preceeding part of this volume. It is becauſe we know nothing abſolutely, but only relatively; and the *intellect*, in forming its ideas, proceeds by obſerving what they have in common, and wherein they differ; whereas, *ſenſe* apprehends its objects directly and immediately, not by ſuch circuit and collection. For example, when I ſee any particular object, ſuch as a man, I perceive this object immediately and directly, by the ſenſe of ſight. But, if I would underſtand what

this object is, or, in other words, If I would make of it an object of intellect, I find, that I know nothing of what it is *abſolutely* in itſelf, but only, what it is *relatively* to other things, and I compare it firſt with other animals that I have ſeen, ſuch as, a dog or a horſe, and I find, that it has many things in common with them; ſuch as ſenſation, growth, nutrition, &c. Then, I compare it with other individuals, more reſembling it ſtill than thoſe other animals, and I find, that, beſides what it has in common with the other animals, it reſembles them in rationality, and a certain figure of the body. What it has in common with all other animals, is called its *genus*. What it has in common only with thoſe animals it moſt reſembles, and which, at the ſame time, diſtinguiſhes it from the other animals, is its *ſpecific difference*.

The genus muſt not only be a more general idea, comprehending under it the ſpecies, but it muſt be *eſſential*, that is, neceſſary to the ſpecies, without which it cannot exiſt; as, for example, *animal* is the genus of *man*. Now it is impoſſible to conceive a man, that is not an animal.

Secondly, The genus in the definition, ought not only to be a more general idea, and above the ſpecies, but, it ought to be immediately above it. For there is, as I have likewiſe obſerved elſewhere, a progreſſion upwards of genuſes and ſpecieſes, till we come up to thoſe higheſt genuſes or categories, as they are called, where the progreſſion ends. Thus, for example, the genus of animal is the τὸ ἔμψυχον, or animated body; the genus of it is body; and again, the genus of body is ſubſtance, and there the progreſſion ends, *ſubſtance* being one of the categories. Now, in defining man, we ought to mention the neareſt genus, *animal*, not the remoter, ſuch as *body*, or *ſubſtance*. For, if we were not to mention *animal* at all, but only *ſubſtance*, or *body*, the definition, would be evidently imperfect, becauſe it would not let us know preciſely of what nature man was. If again, beſides *animal*, we ſhould include in the definition thoſe higher genuſes, it would be giving many definitions, or at leaſt parts of definitions, inſtead of one, and going beyond the thing defined, till at laſt, we ſhould run our definition up into metaphyſics.

The other part of the definition is the *difference*, which, joined with the genus, conſtitutes the ſpecies; and therefore, it is called the *ſpecific difference*. Now it is here that the method of diviſion takes place. For every genus may be divided, according to certain *differences*, conſtituting ſo many different ſpecieſes, under that genus. Thus, the genus *animal* may be divided, with reſpect to the mind, or internal principle, into *rational* and *irrational*; according to the conſtitution of the body, into *ſanguineous* and *exſanguious*; according to the method of generation, into *oviparous* and *viviparous*; according to food or diet, into *carnivorous* and *granivorous*, and the like. If in this way a genus is properly divided, the whole extent of it is ſhewn, and all the ſeveral ſpecieſes under it properly ranked and claſſed. Of this, fine examples may be ſeen, in the *Sophiſta* and *Politicus* of Plato, and likewiſe in Mr Harris's dialogue upon Art, which is the beſt ſpecimen of the antient dividing, or *diaeretic* manner, as they called it, that is to be found in any modern book, as far as I know *.

* See what I have further ſaid upon this ſubject, in vol. 2. book. 3. p. 448. where I have ſhewn, that Biſhop

Now, this difference, which thus divides the genus, and conſtitutes the ſpecies, ought to be ſome principal quality, ſuch as is the foundation of all or moſt of the other remarkable qualities of the ſpecies. It ought alſo to be peculiar to that ſpecies, and not common to any other of the ſame genus. Now, the having or not having a *membrana nictitans*, or long or ſhort arms, are ſpecific differences of men, deficient in both theſe reſpects. For, in the firſt place, they are trivial qualities, which produce no remarkable effects in the animal. And, ſecondly, they are common to men and other animals, for hawks have likewiſe a *membrana nictitans*, and the ſimian tribe are diſtinguiſhed by longer and ſhorter arms.

Another thing to be particularly obſerved concerning the ſpecific difference, is, that it ought not only to be found in all and every one of the ſpecies, and in them only, but in every one at every time. This is the caſe of the other part which conſtitutes the definition, I mean the genus; for there is certainly no time, when any individual man is not an animal. And, I ſay, it is the ſame, with

Biſhop Wilkins has very ſucceſsfully uſed this dividing method in framing his univerſal language.

reſpect to any proper ſpecific difference, ſuch as that of *rational* in man. But how is this to be underſtood? Muſt a man be always in the actual exerciſe of reaſon? That is certainly not the caſe. This ſpecific difference, therefore, of *rational* does not conſiſt in the energy or actual exerciſe of the faculty of reaſon. But does it conſiſt in the poſſeſſion of that faculty? Neither is this true; for, otherwiſe, a new-born infant would not be a man, for he certainly has neither the actual energy of reaſon, nor has he yet acquired the faculty. He has then no more than what I call the *capability*, that is, the capacity of acquiring the faculty. And, upon examination, we ſhall find it to be ſo not only in man, but in other animals, and likewiſe in vegetables, that they have not, upon their firſt appearance, thoſe particular marks of difference which diſtinguiſh the ſpecies, but afterwards acquire them; yet, from the beginning, they are reckoned of the ſpecies, becauſe they have the capability. And thus, it appears, that the actual poſſeſſion of any quality is not neceſſary to characterize any ſpecies, but it is ſufficient that the individual have the capacity of acquiring that quality, in order to be deno-

minated of that ſpecies of which ſuch quality is a characteriſtical mark of difference.

One thing is to be obſerved concerning both the genus and the ſpecific difference, that they conſiſt not of two qualities only, but commonly of more; for, ſuch is the variety of nature, that a combination of ſeveral qualities is required to diſtinguiſh the thing defined from other things. When that is the caſe, we may either make one moſt general quality the genus, and throw all the reſt into the ſpecific difference; or we may join one of the others to the moſt generic quality, and make theſe two together the genus, throwing the reſt into the ſpecific difference. Thus, in defining man, we may either make *animal* ſimply the genus, and all the other qualities we think proper to put into the definition the ſpecific difference; or, what I ſhould like better, we may conſider *rational animal* as the nearer genus, and *animal* ſimply as the remoter, making the ſpecific difference to conſiſt of all the other qualities we add to the definition.

Theſe are the rules of definition, ſuch as they are laid down in the peripatetic ſchool; and I think it is evident that they are founded in the nature of things. For the defi-

nition of a ſpecies muſt neceſſarily be taken from the individuals of that ſpecies. Now, as has been obſerved, we know nothing abſolutely, and in itſelf; but only relatively, and by what it has in common with other things. And a definition, like every other idea, is what is *common* or general, not what is *ſingular*, or particular. But the definition cannot contain what the individual has in common with every thing. For, otherwiſe, it would be, inſtead of a definition, a long deſcription, containing many things unneceſſary and ſuperfluous. It ought, therefore, only to contain what the individual has in common with thoſe things which it reſembles moſt. Now, every individual is moſt like to the other individuals of the ſame ſpecies. Next to theſe, it moſt reſembles the individuals of other ſpecieſes, but which are of the ſame genus. Thus an individual man moſt reſembles the other individuals of his own ſpecies; next to theſe, he is likeſt to the individuals of other ſpecieſes of the ſame genus, viz. *animal*. The definition, therefore, of man contains the qualities which he has in common with thoſe of his own ſpecies; and likewiſe ſuch as he has in common with the individuals of other ſpecieſes of the ſame genus. The laſt of theſe makes

the *genus* of every definition. The other what is called the *ſpecific difference*. And, by theſe two, the thing defined is ſufficiently marked and diſtinguiſhed from other things. Leſs would not be ſufficient for that purpoſe. More would be ſuperfluous.

Before I come to apply, more particularly, theſe general rules of definition to the definition of man, I will make ſome obſervations upon the method of defining and dividing animals in general *. They are divided, either into certain genuſes, comprehending different ſpecieſes, or they are divided into ſpecieſes only, having under them nothing but individuals.

As to the firſt of theſe diviſions, it is much followed by Linnæus, and his whole ſyſtem of nature, with regard both to animals and vegetables, is founded upon it.

* It may be here obſerved, that things of our own making, ſuch as our abſtract notions, may be defined by the manner in which they are generated or produced. In this way, Euclid has defined a cone and a cylinder, and every geometrical figure might be defined in the ſame manner. Theſe are the moſt perfect of all definitions, becauſe they give us the conſtituent principles, and very eſſence of the thing. But, as we have not this knowledge of the works of nature, ſuch as animals, we cannot define them otherwiſe than by what they have in common with one another, in the manner above mentioned.

For, beſides what he calls *ſpecies*, and which, in the language of antient logic, is called the *loweſt ſpecies*, as having nothing under it but individuals, he has claſſes, orders, and genuſes; by which three terms, he means no more, at leaſt as I underſtand him, than what the ancients called genus, differing only, in being higher or lower, with reſpect to one another. Thus, for example, ſubſtance, is a higher genus than animated body, and may be called, in the language of Linnæus, *a claſs*. Animated body is a ſpecies under it; but, being likewiſe a genus with reſpect to what is below it, it may be called, in his language, an *order*. And animal, again, being a ſpecies under it, but likewiſe itſelf a genus, it may be called, in his language, a *genus*, in contradiſtinction to higher genuſes *. On the contrary, Mr

* Here, we may obſerve the regularity of the ancient ſyſtem, upon this ſubject, and how comprehenſive it was, taking in all the poſſible variety of things. For, according to this ſyſtem, ſome things are ſpecieſes only; ſome things are genuſes only, ſome things are both genus and ſpecies, in different reſpects, και παρα ταυτα ουδεν, to uſe an expreſſion of Ariſtotle. Thus the higher genuſes or categories, ſuch as ſubſtance, are genuſes only; the loweſt ſpecieſes, ſuch as man, are ſpecieſes only; and betwixt

Buffon rejects ſuch diviſions altogether, and ſeems to deny, that there is any ſuch thing in nature as a genus. But, I think it would not be doing juſtice to a man, to whom natural philoſophy, or at leaſt natural hiſtory, owes ſo much, and who, beſides, is one of the fineſt writers the French ever had, to ſtrain any general expreſſions he may have uſed upon the ſubject, to ſo abſurd a meaning. For he ſurely does not mean, that we cannot divide our abſtract notions into genuſes, as well as ſpecieſes. He will not, for example, deny, that figure is a genus, with reſpect to the triangle, the ſquare, the circle, &c. or that the triangle itſelf is a genus, with reſpect to the equilateral, the iſoſceles, or the ſcalenum. Neither will he deny, that, with reſpect to the various ſpecieſes of animals, *animal* itſelf is very properly made a genus; as *animated body*, or the το εμψυχον, is with reſpect to *animal* and *vegetable*. And, in general, I apprehend, he does not mean to deny, that whatever eſſential quality any two or more ſpecieſes

theſe two, the intermediate ſteps, ſuch as body, animated body, and animal, are, in different reſpects, both genus and ſpecies.

of any kind, are found to have in common, ſuch quality is very properly made the genus of thoſe ſpecieſes. But his meaning I take to be, that, with reſpect to animals, there is no ſuch quality, in which different ſpecieſes of animals agree, as ought to conſtitute a genus or claſs, comprehending all thoſe ſpecieſes. That there are qualities which many ſpecieſes have in common, cannot be denied. But, ſays he, if I rightly underſtand him, except it be that common quality of ſenſation, belonging to the whole animal nature, they have nothing in common, that fitly conſtitutes a genus, or can be a ground for claſſing and dividing them, in the manner that Linnæus has done, And ſo far I muſt agree with Mr Buffon, that, unleſs the common quality be ſomething eſſential in the nature of the ſeveral animals, ſuch as, without it, they would not be what they are, tho' it may be obſerved by the natural hiſtorian, it ought not to be made the foundation for aſſorting the ſeveral animals into one claſs or genus. And I muſt confeſs, I think ſeveral of Linnæus's diviſions are of this kind, particularly, that great claſs of his, the *Mammalia*, under which, he comprehends a great number of animals,

exceedingly different from one another, and, among others, *man* and the *whale*. Now, though it be true, that man and the whale have *mammae* in common; yet, as it is a property that does not appear at all to unite theſe two animals in one common nature, but as, on the contrary, they are quite different in figure, ſize, oeconomy, and manner of living, inſtinct, or diſpoſition of mind, and even with reſpect to the element in which they live, it ought not to be made the characteriſtic of the genus; nor can ſuch diviſions, in my opinion, contribute much to the advancement of knowledge. Of this kind alſo, I reckon that mark of diſtinction by which he has diſtinguiſhed what he calls the Orang Outang from our ſpecies, or the *homo ſapiens*, as he is pleaſed to call us, viz. the *membrana nictitans* above mentioned. And, in the ſame way, I conſider the number of toes and fingers, whether they be three, four, or five; what number of teeth the animal has; whether he has horns upon his feet or not; whether he has teats; and whether the hairs of his tail cover it all, or only the point of it. Many of theſe things are properly enough, I think, called by Mr Buffon *parts excreſcent*, or *ſupernumerary*, which may

not be intended by nature for any particular purpoſe, but are the neceſſary conſequence of the general frame or conſtitution of the animal, which, no doubt, by Nature, is intended for a certain purpoſe, but of which thoſe parts are no more than excreſcent appendages. See Buffon, tom. 5. p. 103. *et ſeq.**.

But, though I ſo far agree with Mr Buffon, I cannot go the length he does, of rejecting all diviſion into claſſes or genuſes; and, wherever I find ſeveral ſpecieſes of animals united in a quality which has a great influence upon their natures, I think it is very properly made a mark of ſeparation of thoſe animals from others, or, in other words, it is a proper characteriſtic of a genus. Thus, of the ſeveral diviſions I gave

* By what I have ſaid here of Linnæus's claſſes and orders, I would not be underſtood to mean, that they are altogether uſeleſs, and improper; I only ſay, they are not ſcientific; and I am told, by thoſe who have ſtudied his ſyſtem much more than I have done, that they are not given by him as natural and ſcientific diviſions of animals, which ought certainly to be taken from the whole animal conſidered complexly, not from any particular part or property of it, but only, as artificial arrangements, which may be uſeful in teaching, by ſerving the purpoſe of a nomenclature or dictionary.

above of *animal*, taken from the internal principle, the conſtitution of the body, the method of procreating the ſpecies, or ſupporting the individual, as many different genuſes may be conſtituted, by which animals are divided into rational and irrational, ſanguineous and exſangueous, oviparous and viviparous, frugivorous and carnivorous; theſe being qualities common to many different ſpecieſes of animals, and ſuch as diſtinguiſh them eſſentially from one another. Again, ſome animals can only live in the element of air, others only in the element of water, and ſome in both. This undoubtedly makes a great difference, not only as to the outward figure and the inward organization, but alſo with reſpect to the whole oeconomy or manner of life. Therefore, I think, animals are very properly divided into terreſtrial, aquatic, and amphibious: And, in the definition of an animal, any one of theſe claſſes may very properly be made the genus. Mr Buffon himſelf, though he doth not any where formally admit of this diviſion, yet he frequently ſuppoſes it, as when he ſays that the ſeal, and another animal which he names, are the only animals that are properly amphibious. And, indeed, it is al-

moſt impoſſible to treat of animals without making this diviſion of them.

Again, of the terreſtrial animals, ſome fly, others only walk on the earth. This difference muſt certainly produce a great difference in the formation of thoſe animals, in their oeconomy, and their inſtinct; and, therefore, I think, that of this ſubdiviſion of the genus of terreſtrial animals may be properly made two other genuſes, the *volatile* and the *ambulatory*, as they may be called.

The diviſion alſo above mentioned, taken from Ariſtotle, of animals, into gregarious, ſolitary, and mixed, is of a kind that very properly diſtinguiſhes animals into different claſſes, of different natures and inſtincts; and therefore, they are fitly made ſo many genuſes. And, without giving more inſtances, I think I may conclude, that the general rule of definition which directs that the genus ſhould be made a part of every definition, will apply to animals as well as to other things; and that, therefore, Buffon is miſtaken when he rejects this rule in his Natural Hiſtory, and that he had done much better to have followed, if not the diviſions and arrangements of Linnaeus, thoſe of A-

riſtotle*, which, I believe, will be found, upon careful examination, to be the beſt that have hitherto been diſcovered. This much, at leaſt, is certain, that no philoſopher we know of, ever ſtudied method and arrangement ſo much as Ariſtotle, or has explained ſo well the nature of definition and diviſion.

The opinion of Mr Buffon is as ſingular, with reſpect to the ſpecies of animals. He ſays, that the only thing that diſcriminates ſpecieſes is the individuals engendering to-

* It has been obſerved by many moderns, that the ancient philoſophy, and particularly their philoſophy of nature, is too abſtract and metaphyſical, not ſufficiently founded upon experience and obſervation. But, whoever reads Ariſtotle's hiſtory of animals with proper attention, will find there, a collection of facts and obſervations, ſuch as is really ſurpriſing, and could not have been the fruit of the labour of one man, but of thouſands, employed by his pupil Alexander, to collect for him materials of natural knowledge, from all the parts of the world then known. But the digeſting and arranging them was left to the philoſopher, for which he was rewarded by Alexander, with no leſs ſum, it is ſaid, than eight hundred talents. This monument of his love of learning, and munificence to the learned, has outlived almoſt all the other monuments of this conqueror; and, as it has been more uſeful to poſterity, ſo, it ought to give him more laſting fame, than all his other great actions put together.

gether, and the offspring of ſuch copulation engendering likewiſe *. In this way, it cannot be determined, that any two animals are of the ſame ſpecies till the third generation; ſo that our knowledge, in this reſpect, muſt depend upon a fact which, in all caſes, requires a conſiderable time; and, in many caſes, may be very difficult, if not impoſſible, to be aſcertained. According to this rule, indeed, we have not experience or obſervation ſufficient to determine that the Orang Outang is of our ſpecies. For, though we know, certainly, that he copulates with our females, and though there be the greateſt reaſon to believe, that there is offspring of ſuch copulation †, we have no facts by which we can be aſſured that this offspring will not, like the mule, be barren and unfruitful. But, let us inquire, whether this new diſcovery of Mr Buffon's be well founded, or whether nature has not furniſhed other marks, by which we may determine,

* Vol. 4, p. 384. *et ſeq.*

† Keoping, the Swediſh traveller above quoted, relates, that he himſelf ſaw the offspring of a woman by an Orang Outang, which having in it all the vigour of the wild race, immediately, when it was born, began to run about, and to climb upon every thing.

with as great certainty as can be required in natural things, whether two animals be of the ſame ſpecies, without waiting the iſſue of experience and obſervation, which, in many caſes, may be impracticable.

So far I agree with Mr Buffon, that, tho' two animals engender together, yet, if the offspring do not likewiſe engender, it is proof negative that thoſe two animals are not of the ſame ſpecies. But is there no other proof of animals being of different ſpecieſes? Suppoſe two animals quite unlike one another in outward ſhape, inward ſtructure, and likewiſe inſtinct, or natural diſpoſition of mind, might we not conclude, with great aſſurance of not being miſtaken, that theſe two animals would either not copulate, or that, if they did, their offspring would not produce? I think we might, for this plain reaſon, that animals coming together in the way of copulation, and producing an offspring which is likewiſe productive of its like, muſt depend upon a ſimilarity of configuration of the parts external and internal, and likewiſe of the natural habits and diſpoſitions of the animal; ſo that, where ſuch ſimilarity is not to be found, we may conclude that the animals are not of the ſame ſpecies. And, on

the other hand, where ſuch ſimilarity is perceived, we may, with equal certainty, conclude, that the animals are of the ſame ſpecies. For it is evident, that this property of producing and reproducing muſt depend upon certain qualities of body and mind; and muſt be the reſult of one or other, or all of the three things I have mentioned, viz. the external form, the inward ſtructure, or the habits and diſpoſitions of the mind.

As to the external form, though it be true what Buffon ſays, that it is to be conſidered only as drapery, and that the internal form is the real figure of the animal, and is that which chiefly makes the differences among animals *; yet I think it muſt be admitted that this *natural dreſs* of the animal is at leaſt a ſign of the inward configuration; nor do I believe any one inſtance can be given, where this ſign is ſo deceitful, that, though the outward appearance be exactly the ſame, yet the inward is quite different, and the animals of different ſpecieſes. The ſimilarity, therefore, of the outward form is the firſt rule that I lay down

* Vol. 13. p. 37.

for aſcertaining the identity of the ſpecies.

But let us ſuppoſe, that nature may have deceived us by this mark, and that there are creatures which perfectly reſemble one another in outward ſhape, yet are not of the ſame ſpecies, what ſhall we ſay of the caſe, where both the outward and inward configuration are exactly the ſame, or no more difference to be found, than is to be found betwixt individuals confeſſedly of the ſame ſpecies? for the variety of nature is ſuch, that no two individuals of the ſame ſpecies are exactly like one another, not even two leaves of the ſame tree; I aſk whether, in all the variety of nature, there be found one example of two animals reſembling each other ſo perfectly, and yet different in ſpecies?

But, further, let us ſuppoſe likewiſe a reſemblance, not only in the corporeal form, inward and outward, but likewiſe of the inward principle, which directs the motions and actions of the animal, and is the ſource of all its ſentiments, inclinations, and affections; I aſk whether it would not be a prodigy of nature, if, with this triple conformi-

ty of outward ſhape, inward organization, and the natural habits and diſpoſitions of the mind, two animals ſhould be found different in ſpecies? If it were otherwiſe, there would, indeed, be an end of all *ſpecific difference* with reſpect to animals, and there would be no diſcrimination of their ſpecieſes, except by a fact requiring ſo much time and obſervation to verify, that, in many caſes, we could not determine whether the animals were of the ſame ſpecies or not.

In this manner, I have endeavoured to lay down the general rules of definition. I have alſo applied thoſe rules to the definition of animals in general, and have ſhewn that all animals muſt be defined by one or other, or all of the three things above mentioned, viz. the outward ſhape, the inward configuration, or the natural habit or diſpoſition of the mind. And I come now to apply theſe general rules to the definition of man.

The Peripatetic definition of man is, a *rational animal, mortal, capable of intellect and ſcience* *. The genus of this definition may

* Ζωον λογικον, θνητον, νου και επιστημης δεκτικον.

be conſidered not as *animal* ſimply, but *rational animal*, that is to ſay, as I have elſewhere explained it, that kind of animals that have the comparative faculty, by which they compare things together, deliberate and reſolve, ſuch as horſe, dog, elephant, and other animals of the better ſort; and this I hold to be the proper ſenſe of the Greek word λογικον. And, it is in this ſenſe, that the Pythagoreans and other philoſophers of Greece muſt be underſtood, when they maintain that animals, having ſenſe and memory, are rational *. The ſpecific difference may conſiſt, as I have obſerved, of more than one thing. And, here, it conſiſts of two, viz. *mortal*, by which man is diſtinguiſhed from other intelligences that are immortal; and the *capability of intellect and ſcience*, by which he is differenced from the brutes above mentioned, which, though they have the rational or comparative facul-

* See Porphyr. *De abſtin. lib.* 3. *c.* 1. *et* 6. *in fine.* The word *rational* in Engliſh, does not denote the comparative faculty only, as the word λογικον in Greek does, but it is uſed in a larger ſenſe, ſo as to comprehend intellect; and, in this ſenſe, I have frequently uſed the word in the courſe of this work.

ty, are not ſuppoſed capable of attaining to intellect and ſcience. And, here, there is a difference in the expreſſion worth remarking. He is ſaid to be rational or logical; but he is ſaid to be only capable of intellect or ſcience *; yet, *rational*, as I have obſerved, does not denote the actual poſſeſſion of the faculty, otherwiſe a new-born infant would not be a man; but only a natural aptitude to acquire it. But the difference, as I have elſewhere obſerved, lies in this, that the infant, when he grows up, muſt of neceſſity acquire this comparative faculty, for which he has only an *aptitude*, while he is ſo young, otherwiſe he would not be a man; whereas, intellect and ſcience, he may never attain; and therefore the *capability* of theſe is all that is required to make him a man.

From the account I have given of this definition, it is evident, that it is taken chiefly from the internal principle of the animal. This, as I have obſerved, is principal in all animals, becauſe it governs their motions and

* In order to have made the expreſſions ſimilar, it ſhould have run thus, in the Greek, ζωον λογικον, νοερον, και επιστημονικον.

actions; and, as every animal is by nature deſtined for a certain courſe of action, and a certain oeconomy and manner of living, whatever prompts and directs him to that, muſt be accounted principal in his frame and conſtitution *. And if this holds in other animals, it does ſo in a particular manner in man, in whom the internal principle is ſo eminent, and of a nature ſo much ſuperior, when it comes to be fully exerted, to the ſame principle in other animals. It is therefore, not without reaſon, that the philoſophers of the Peripatetic ſchool have choſen

* Ariſtotle, in the general diviſion of animals, which he gives us, in the firſt chapter of his firſt book of natural hiſtory, ſays, that they are different with reſpect to their lives, actions, manners, and parts &c. Αἱ δὲ διαφοραὶ τῶν ζώων εἰσὶ καθ' ἃ τὸν βίον, καὶ κατὰ τὰς πράξεις καὶ τὰ ἤθη, καὶ τὰ μόρια. Now the three firſt he mentions, are, undoubtedly, the reſult of what I call the internal principle, which not only makes the temper and character of the animal, or the *manners*, as Ariſtotle calls it, but directs the oeconomy and whole manner of life; for which laſt purpoſe we muſt ſuppoſe even the parts of the body are framed. As, therefore, the internal principle is ſo predominant in the animal nature, Ariſtotle has given very great attention to it, beſtowing a whole book upon it, and the longeſt book in the work, *viz. lib.* 9. And indeed he appears to me to make it the principal diſtinction of animals.

to take the definition of man from his mind; and there are other animals, which I think might not improperly be defined in the ſame way. The dog, for example, is not ſo much diſtinguiſhed from either the fox or the wolf, though of a different ſpecies from them, by his outward or inward make, as by his diſpoſition, humane, friendly, and affectionate *.

But, though man be thus properly defined from his better part, there is nothing to hinder us from taking into the definition, the form of the body, as ſome of the antients did. We may ſay, that he is a biped, or rather, as Ariſtotle has expreſſed it, more adapted by nature to walk erect than any o-

* He ſeems to be formed by nature, for a companion and friend to man; and Homer, I think, ſays, not improperly, that Telemachus was not alone, for he had two dogs with him. Buffon ſays, that we ſhould not have been able to eſtabliſh our empire over the other animals, if we had not divided them, and brought over to our party the dog, *vol.* 5. *p.* 187. who indeed has been a moſt faithful ally to us, and contributed more than any other to the deſtruction of his fellow brutes. He has alſo aſſiſted us in deſtroying one another; for, in antient times, he was uſed in war by ſome nations, ſuch as the Gauls and the Hyrcanians. *Strab.* Geogr. lib. 4.—*Ælian.* lib. 7. c. 38. To prove that he is not of the ſame ſpecies with either the wolf or the fox, Mr Buffon tried two experiments, which he has related, *ibid. p.* 210. *et* 216.

ther animal. We may add, that he is ſolid-footed, has broad nails, and teeth of a particular kind, betwixt thoſe of the carnivorous and the granivorous animal. We may make alſo the deſcription of his mind more complete, by mentioning in the definition, not only his rational and intellectual powers, but his mild, humane, docile, tractable diſpoſition, capable of love and friendſhip, and the ſtrongeſt attachments, with a ſenſe of decency, honour, and juſtice. With theſe additions, I think no body will deny, that the Peripatetic definition of man would be complete. And the only queſtion is, Whether the Orang Outang, from the facts ſtated concerning him in the preceeding chapter, comes up to this definition?

And I think there can be little doubt of this, unleſs we be reſolved, rather than diſgrace our nature, as we imagine, by admitting the Orang Outang to a participation of it, to diſbelieve what is atteſted not only by common travellers, but by philoſophers and learned phyſicians: For he has not only the human form both inſide and out, but he has the particulars above mentioned relating to the mind, or inward principle. He is

ſagacious * beyond all the other animals inhabiting the woods; he has a mildneſs and a gentleneſs in his nature, which is really wonderful in a wild animal, and would not be found in him, if he were an animal of prey, and ſubſiſted upon fleſh, not upon herbs and fruits: He is docile and tractable, imitating what he ſees us do, not ridiculouſly as the monkey does, but with gravity and decency: He is capable of the greateſt affection, not only to his brother Orang Outangs, but to ſuch among us as uſe him kindly. And it is a fact, well atteſted to me by a gentleman who was an eye-witneſs of it, that an Orang Outang, which was on board his ſhip, conceived ſuch an affection for the cook, that when, upon ſome occaſion, he left the ſhip, to go aſhore, the gentleman ſaw the Orang Outang ſhed tears in great abundance. And, *laſtly*, the great Orang Ou-

* Under the τα ηθη or manners, Ariſtotle comprehends not only what is properly denoted by that word, viz. the diſpoſitions or affections, but alſo the ſagacity and underſtanding of man, as appears, from *c.* 3. *lib.* 9. of his natural hiſtory, where he ſays, Τα δε ηθη των ζωων, ὡσπερ ειρηται προτερον, κατα τε δειλιαν, και πραοτητα, και ανδριαν, και ἡμεροτητα, και νουν, και ανοιαν. So that what Ariſtotle calls the *manners* of animals, comes preciſely to what I call their *internal principle*.

tang carries off boys and girls to make ſlaves of them, which not only ſhews him, in my apprehenſion, to be a man *, but proves, that he lives in ſociety, and muſt have made ſome progreſs in the arts of civil life; for we hear of no nations altogether barbarous who uſe ſlaves.

But ſtill it is true what Bontius has obſerved in the paſſage above quoted, that he wants the faculty of ſpeech belonging to man; at leaſt, this is the caſe of the Orang Outangs of Africa and India; and, if it could be proved that ſpeech was natural to man, the objection would be invincible: But I think I have proved the direct contrary; and have ſhown evidently, by arguments, both *a priori* and *a poſteriori*, that there is no natural language belonging to man, except what belongs to other animals; and all that can be truly ſaid of man is, that he has the capacity of acquiring the faculty of ſpeech, as well as many other faculties,

* It is given by Mr Buffon, as a certain proof of *humanity*, and a diſtinguiſhing mark of difference betwixt us and the brutes— 'car nous ne voyons pas que les animaux, qui ſont plus forts et plus adroits, commandent aux autres, et les faſſent ſervir á leur uſage;' *vol.* 1. *p.* 160.

which he has added to his nature. If, therefore, any thing concerning ſpeech were to be added to the definition of man, it ſhould be mentioned in the ſame way as *intellect* and *ſcience* are in the Peripatetic definition; and we ſhould ſay, that man is an animal *capable of ſpeech*. Now, that the Orang Outang has this capacity, we cannot reaſonably doubt, when we ſee, that he has the capacity of being a muſician, and has actually learned to play upon the pipe and harp, a fact atteſted, not by a common traveller, but by a man of ſcience, Mr Peireſc, and who relates it not as a hearſay, but as a fact conſiſting with his own knowledge. And this is the more to be attended to, as it ſhows, that the Orang Outang has a perception of numbers, meaſure, and melody, which has always been accounted peculiar to our ſpecies. But the learning to ſpeak, as well as the learning muſic, muſt depend upon particular circumſtances; and it ſhall be ſhewn, in the ſequel, that men, living as the Orang Outangs do, upon the natural fruits of the earth, with few or no arts, are not in a ſituation that is proper for the invention of language. The Orang Outangs, who played upon the pipe, had certainly not invent-

ed this art in the woods; but they had learned it from the negroes or the Europeans; and that they had not at the ſame time learned to ſpeak, may be accounted for in one or other of two ways;—either the ſame pains had not been taken to teach them articulation; or, ſecondly, muſic is more natural to man, and more eaſily acquired than even ſpeech, and was probably, as ſhall be afterwards ſhewn, firſt learned by them.

The objection, therefore, when thoroughly examined, comes to this, that the Orang Outang has not yet learned the ſeveral arts that we practiſe; and among others which he has not acquired, is that of Language. If, on this account, the Orang Outang be not a man, then thoſe philoſophers of Europe, who, about the time of the diſcovery of America, maintained, that the inhabitants of that part of the world were not men, reaſoned well; for, certainly, the Americans had not then, nor have they yet, learned all the arts of which their nature is capable. But I think the Pope, by his bull, decided the controverſy well, when he gave it in favour of the humanity of the poor Americans: And, for the ſame reaſon, we ought to decide, that the Orang Outangs are men. And, indeed, it appears

to me, that they are not ſo much inferior to the Americans in civility and cultivation, as ſome nations of America were to us, when we firſt diſcovered that country.

It is, however, true, that the Orang Outang, particularly the Pongo, or great one, is an animal very different in many reſpects from us, both in body and mind; and if this difference could not be accounted for, he might, with ſome reaſon, be reckoned an animal of a different ſpecies. But I think it is eaſily to be accounted for from the change which culture and civilization makes upon all animals.

That this change muſt be very great will be evident, if we compare the natural ſtate of animals with their tame domeſtic life. In the natural ſtate, the animal lives in the open air, provides for himſelf ſubſiſtence, which is either the natural fruits of the earth, or the fleſh of other animals, if he be an animal of prey; and has no more than ſuffices nature, often leſs. On the other hand, the tame domeſticated animal lives under cover, cloſe and warm, and often with the addition of the unnatural heat of fire. His food is the artificial fruits of the earth, or fleſh, both very often prepared by fire. And many of them

are fed in this manner, without any labour or care taken by them to provide it. Such a total change of the whole oeconomy and manner of life muſt of neceſſity make a great change, one way or another, upon the animal, both with reſpect to the body, and to the character and temper of the mind.

Nor is this mere theory and ſpeculation; for it is a certain fact, that ſome animals have been ſo changed, by being domeſticated and educated by man, that the original and natural animal is hardly to be found out. Of this kind, the dog is a remarkable example. For he has been ſo much *handled*, as Buffon expreſſes it, by men, that, if the fox is not the original wild dog, which Mr Buffon aſſerts he is not, and I think has given very good reaſons for his aſſertion, it is altogether uncertain where he is to be found; for thoſe dogs that run wild in America are certainly not original in that country, but the offspring of tame dogs that have been brought from Europe. Then, there is that common animal the hen, which is ſo much altered by the tame houſed-life, that we cannot certainly know from what original ſtock ſhe came, whether from the partridge, the common muir-fowl, or grouſe, as they call them,

the black-cock or heath-fowl, or, what I think more probable, is the offspring of ſome foreign bird that has been imported to this country; which, I believe, is likewiſe the caſe of our tame ducks and geeſe.

But, even where the animal is not ſo much changed, by being under our care, as not to be knowable in his original ſtate, ſtill the change is very great. The firſt example I ſhall give is of the hog, who is undoubtedly of the ſame ſpecies with the wild hog, an animal very well known on the continent. But thoſe that are wild differ much in colour and ſhape from the tame, and likewiſe in ſize, the wild, particularly the males of them, being much larger, ſtronger, and fiercer than the tame. The inſtinct too of the wild is different from that of the tame, particularly in this, that the wild boar is a ſolitary animal, as ſoon as he grows up, and can live alone, and defend himſelf againſt the wolf *. Whereas, the tame kind always chuſe to herd; and particularly at night, when they ſleep, they have the cloſeſt ſociety perhaps of any animal known.

* Buffon, vol. 5. p. 110.

The wild cat too is very different from the tame, particularly in the ſize; for the wild is much bigger, ſtronger, and fiercer.

The bullock too, in his natural ſtate, appears to be a much larger animal than the tame; for there have been found, in ſome lochs of Scotland, heads of bullocks of monſtrous ſize, and which, there is all the reaſon in the world to believe, were the heads of wild bullocks inhabiting the woods, before Scotland was cultivated and peopled as it is now. And I hold it to be a general rule, which, for what I know, does not ſuffer any exception, that every animal, in the natural ſtate, and in a country and climate which are natural to them, provided only they have nouriſhment ſufficient, is larger and ſtronger than the ſame animal tamed and houſed. Even in Lapland, where one ſhould think the animals would ſtand more in need of man, and his arts, than in milder climates, it is a certain fact that the wild rein-deer are larger than the tame *. And the reaſon I think is obvious, which is no other than this, that every animal muſt thrive beſt in that ſtate

* See the account of Lapland, lately publiſhed by Leemius, a Daniſh miſſionary in that country.

in which it is placed by God and nature. Nor can any alterations of that ſtate be made by human art, without the animal being impaired in ſize, health of body, ſtrength, and longevity. Now, the change we have made in the natural ſtate of the animals that we have tamed, and made ſubſervient to our uſe, is very great: For, beſides, the change of diet, and manner of life in the particulars above mentioned, beſides the ill uſage which they commonly ſuffer from us, we make them propagate in an unnatural manner, which, in the courſe of many generations, muſt certainly impair the vigour of the race. In all ſpecieſes of animals, there is reaſon to believe that nature has produced as many males as females: Accordingly, many animals pair; all thoſe, I am perſuaded, whoſe oeconomy makes it neceſſary, that both parents ſhould join in rearing the offspring, which is the caſe of moſt, if not of all the oviparous. And, among thoſe animals that do not pair, ſuch as oxen and horſes, where the mother alone can rear the offspring, and provide for it, till it be able to provide for itſelf, though the ſtronger and fiercer male will no doubt have the uſe of the greater number of females; yet one of

thoſe males in the natural ſtate, will not ſerve ſo many females, as we make him ſerve in the domeſticated ſtate; and the females likewiſe, by being houſed and pampered, breed oftener, and produce more at a time, than they do in the natural ſtate. This at leaſt is the caſe of the animal above mentioned, the hog. For the wild ſow breeds only once a year; whereas, the tame commonly breeds twice a year, *. Nor does the wild produce ſo many at a litter; for ſhe never exceeds, as I am informed, five or ſix; whereas, the tame produces ſometimes to the number of eighteen, tho' ſhe have but fourteen teats; but, for this, Mr Buffon ought not to accuſe nature of any defect or imperfection. Now, it is certain, that the female by breeding, as well as the male by begetting, more than nature intended, will not only be weakened themſelves, but their race will be impaired; eſpecially if they begin to breed too ſoon, which is the caſe of all the animals that are houſed and pampered. For that unnatural diet and warmth brings on a pre-

* Buffon, tom. 5. p. 115.

mature puberty; than which, nothing contributes more to weaken the race, as is well known to all breeders. And we alſo hurt the young animals, by either taking them altogether from the mother, and ſo bringing them up in an unnatural way, or by taking them away ſooner than ought to be done.

Further, not only are animals ſo much altered by culture and art, but likewiſe vegetables; ſo that many of them alſo are hardly to be found in the natural ſtate. Flowers, particularly, have in this way undergone a remarkable change; for, of them, nature has produced only ſingle-leaved flowers, at leaſt this is the general rule, to which I believe there are very few exceptions; but, by our art, we have doubled, tripled, or quadrupled the flower-leaves; in ſhort, multiplied them ſo much, that the plant becomes altogether unfruitful, and loſes that natural faculty of reproducing itſelf, and ſo continuing its ſpecies, which is common to all animals and vegetables. Of fruits, ſuch as pears and apples, we have made new ſpecieſes, or, at leaſt, great variations of the ſame ſpecies; and one claſs of plants, the moſt uſeful to us of all, we have

cultivated ſo much, that the origin of it is as much hidden, as the fountain of the Nile was of old. The plant I mean is *corn*; of which, tho' there be ſeveral ſpecieſes, I do not know, that we have diſcovered with any certainty the original plant of any of them. Linnæus thinks, that he has found out the native country of ſummer-wheat, which he ſeems to think a grain different from winter-wheat; Buffon is of opinion, that corn is originally nothing elſe but ſome barren graſs of the meadow, which the art of man, by reiterated culture, has transformed into a fruitful plant, the chief ſupport of life in this part of the world *; and he thinks, that, by being often ſown in uncultivated ground, it might be brought back again to the original barren plant †.

* Buffon tom. 5. p. 195.

† Ibid p. 196.—Tho' I be perſuaded, that this plant is very much altered by culture, I can hardly believe that it is ſo much altered as Mr Buffon ſays. At the ſame time, I do not know upon what authority Linnaeus has ſaid, that a ſpecies of wild wheat is to be found *apud Baſchiros in campis Heintzelman*; *Linnaei ſpecies plantar.* 126. But the beſt authenticated account I have found of the original plant, of one ſpecies of corn, is in an author whom I ſhall have occaſion to quote often in the ſequel,

If, therefore, both animals and vegetables, are ſo much changed by culture and art, what muſt be the caſe of man, who has certainly cultivated himſelf more, and been more the ſubject of his own art, than any other animal, or any plant, and through a longer courſe of time? For man muſt have firſt cultivated himſelf, before he could cultivate any thing elſe. Is it then a wonder, that this man of nature, the Orang Outang, ſhould be ſo different from us? Or, is it not rather a wonder, that we ſhould find in him any of our own features? Yet the fact truly is, that the man is eaſily diſtinguiſhable in him; nor are there any differences betwixt him and us, but what may be accounted for in ſo ſatisfactory a manner, that it would be extraordinary and unnatural, if they were not to be found. His

Gabriel Sagard's travels into the country of the Hurons, in North America. It is well known, that none of the Hurons, nor any of the North Americans, cultivate any grain except Indian corn. Yet, in that country, Sagard ſays he ſaw a field, which appeared to him at a diſtance to be a field of wheat; but, upon looking nearer to it, he found that the ear was like rye, and the grain like oats. He ſays alſo, that he ſaw there likewiſe wild peas, ſo thick, that he ſhould have thought they had been ſown; p. 114.

body, which is of the ſame ſhape with ours, is bigger and ſtronger than ours, at leaſt in the large kind, (for there is among them variety of ſizes, as well as among us), according to that general law of nature above obſerved. His mind is ſuch as that of a man muſt be, uncultivated by arts and ſciences, and living wild in the woods. And particularly, with reſpect to language, if, in ſuch a ſtate, they had had the uſe of ſpeech, it would have proved, either that language is natural to man, the contrary of which I think I have already demonſtrated, or that it is of eaſy invention, and not the artificial thing which, in the ſequel, I hope I ſhall prove it to be.

The only thing that remains to be accounted for is, how it comes to paſs that the Orang Outangs, if they be truly men, are in a ſtate ſo different from the reſt of their ſpecies? The ſame queſtion may be aſked concerning the ſavages on the river Gaboon, in the ſame country of Africa; and likewiſe concerning the ſeveral ſavages that have been found in different parts of Europe at different times. But, ſuppoſe we could give no anſwer to theſe queſtions, it would be no-

thing extraordinary, as there are certainly many facts relating to man, as well as to other animals, for which we cannot account; but it would be arrogance and preſumption, therefore, to diſbelieve them. That men, without the uſe of ſpeech, ſhould be found in the midſt of the civilized nations of Europe, is much more incredible than that ſuch men ſhould be found in Africa, a country which we are ſure in all times has abounded with wild men. In the inland part of that great continent, arts and civility appear to have made leſs progreſs than any where elſe, perhaps, on the face of the earth, becauſe there has been no intercourſe betwixt it and other parts of the world; and, if it were well ſearched, I have no doubt, that many ſtrange animals would be found in it, and, among others, man in his natural ſtate. From thence, in all probability, both the woolly haired ſavage of the Gaboon river, and the Orang Outangs have migrated down towards the coaſt *, and ſo have been diſcovered by the

* Dr Greenhill, from whom I got my information concerning thoſe ſavages of the Gaboon river, ſays, that they ſee, almoſt every week, upon that coaſt, animals that they never ſaw before, which had come from the inland country.

more civilized inhabitants there, and by the Europeans, with neither of whom they have mixed, for ſeveral good reaſons that might be given; and, therefore, have not learned language, nor any other of their arts. One thing at leaſt is certain, that, if ever men were in that ſtate which I call natural, it muſt have been in ſuch a country and climate as Africa, where they could live without art upon the natural fruits of the earth. Such countries, Linnaeus ſays, are the native country of man. There he lives naturally; in other countries, *non niſi coacte*, that is, by force of art. If this be ſo, then the ſhort hiſtory of man is, that the race having begun in thoſe fine climates, and having, as is natural, multiplied there ſo much that the ſpontaneous productions of the earth could not ſupport them, they migrated into other countries, where they were obliged to invent arts for their ſubſiſtence, and, with ſuch arts, language, in proceſs of time, would neceſſarily come.

I have dwelt thus long upon the Orang Outang, becauſe, if I make him out to be a man, I prove, by fact as well as argument, this fundamental propoſition, upon which

my whole theory hangs, That language is not natural to man. And, *ſecondly*, I likewiſe prove that the natural ſtate of man, ſuch as I ſuppoſe it, is not a mere hypotheſis, but a ſtate which at preſent actually exiſts. That my facts and arguments are ſo convincing as to leave no doubt of the humanity of the Orang Outang, I will not take upon me to ſay; but thus much I will venture to affirm, that I have ſaid enough to make the philoſopher conſider it as problematical, and a ſubject deſerving to be inquired into *. For, as to the vulgar, I can never expect that they ſhould acknowledge any relation to thoſe inhabitants of the woods of Angola; but that they ſhould continue, thro' a falſe pride, to think highly derogatory from human nature, what the philoſopher, on the contrary, will think the greateſt praiſe of man, that, from the ſavage ſtate,

* I am glad to hear, that there is a gentleman to be ſent out, by ſome curious perſons in London, to travel in Africa, in order to inquire about the Orang Outang, and other curioſities in that country. And there is one traveller, who has already been there, and who is now upon his way home, from whom we may expect to hear of this, and other wild men in that country.

in which the Orang Outang lives, he ſhould, by his own ſagacity and induſtry, have arrived at the ſtate in which we now ſee him.

CHAP. VI.

Of the Progreſs of civil Society.—That this Progreſs ſhews it is not from Nature.

WHAT I have ſaid of the Orang Outang, in the two preceeding chapters, will not, it is hoped, appear foreign to the ſubject we are now upon, which is to ſhew that there has been a beginning of ſociety as well as of language. The Orang Outang is, if not in the beginning, at leaſt in one of the firſt ſtages of ſociety, and in the progreſs towards a more civilized ſtate. Now, wherever there is a progreſs, there muſt be a beginning; and, from what I have related of the Orang Outang, and other barbarous nations, compared with the ſtate of people more civilized, it is evident that there is a progreſs in *civil* ſociety, at leaſt, ſuch as

is not to be found in natural things, but only in things of human inſtitution. For, firſt, we ſee men living together in herds, like cattle or horſes, without even coupling together, or pairing, as we ſee the males and females of certain other ſpecieſes do; but, nevertheleſs, carrying on ſome common buſineſs, ſuch as fiſhing or hunting, or whatever elſe may be neceſſary for their ſuſtenance, though without any thing that can be called government or rule; and of this kind are the inſtances that I have quoted from Diodorus Siculus, Herodotus, and modern travellers. Next, we ſee them ſubmitting to government, but only upon certain occaſions; and particularly for the purpoſe of ſelf-defence: In which caſe, it has been obſerved, that other animals, ſuch as ſheep and horſes, who are not by nature political, inſtitute a kind of regimen and diſcipline; but which appears to laſt no longer than the danger. Under this kind of occaſional government, certain inhabitants of the Carribbee iſlands were, when we firſt diſcovered thoſe iſlands. They had chiefs and generals in time of war; but, in time of peace, they lived under no government at all*.

* See Labat's account of thoſe iſlands.

The next ſtage of civil ſociety I ſhall obſerve, is that of the Indians of North America, who have a government in time of peace as well as war, and may be ſaid to form a ſtate. This government is adminiſtered by their ſachems, or old men, who meet together in council to deliberate upon public matters; and to their determinations in ſuch matters the young men ſubmit; but without any compulſion or puniſhment, if they are refractory. But, in other matters, every man is his own maſter, ſubject to no controul, not even that of his parents. For, though they have all ſeparate and diſtinct families, there is no domeſtic government among them; neither have they any laws or judges: So that every man defends his own rights, and revenges the injuries done to him.

A ſtricter and more regular form of government obtains in the ſeveral countries of Europe, which is adminiſtered by certain magiſtrates, known under different names in different countries, according to certain rules and regulations, to which every member of the ſtate is obliged to ſubmit, under certain pains and penalties. For the great difference betwixt this government and the laſt mentioned, is the power of puniſhment

which the magiſtrate aſſumes, not only for offences againſt the ſtate, but for injuries done to any member of it, who is not allowed to be judge in his own cauſe, but muſt apply to the magiſtrate for redreſs; and he alſo determines every queſtion concerning right or property among the citizens, according to eſtabliſhed rules. But the private lives of the ſubjects under thoſe governments are left as much to the free will of each individual, and as little ſubjected to rule, as in the American governments above mentioned: And every man in ſuch a ſtate may, with impunity, educate his children in the worſt manner poſſible, and may abuſe his own perſon and fortune as much as he pleaſes, provided he does no injury to his neighbours, nor attempts any thing againſt the ſtate.

The laſt ſtage of civil ſociety, in which the progreſſion ends, is that moſt perfect form of polity, which, to all the advantages of the governments laſt mentioned, joins the care of the education of youth, and likewiſe regulates the private lives of the citizens; neither of theſe being left to the will and pleaſure of each individual; but both directed by public wiſdom. Such was the government

of antient Sparta, and ſuch were all the plans of government deviſed by Plato and other philoſophers.

Nor do ſocieties differ leſs in their ſize and extent, than in their nature and inſtitutions. Some of the earlieſt ſocieties of which we have any record, conſiſted only of ſingle families. The family of Jacob made a ſociety by themſelves. The Cyclops, as Homer tells us, a barbarous people of thoſe times, lived in that way. And Mr Frezier, in his voyage to the South ſea, informs us, that a great part of the inhabitants of Chili live in the ſame manner at this day. Some of thoſe families produced out of themſelves, without any foreign mixture, great nations. This was the caſe of the family of Jacob. But moſt nations have been formed by the aſſociation of ſeveral families; not, however, a great number at firſt. For the Indian nations of North America conſiſted originally of no more than three families, which are yet preſerved among them diſtinct; and there is always one of them that is accounted more honourable than either of the other two *. The Roman

* Whether this particular be mentioned in any printed account of North America, I do not know; but I have it from the French Jeſuite I mentioned above, whom

ſtate, in like manner, conſiſted originally of aſſociated families; a clear proof of which is, that, even in the civil ſtate, the antient family-government among them was preſerved in its full rigour, inſomuch, that the father had power of life and death over his children. From ſuch ſmall beginnings, nations have grown to the ſize of which we now ſee them; and the whole hiſtory of mankind is nothing but a narrative of the growth of families into nations, of ſmall nations into great, and of great nations into mighty empires. Theſe at laſt become too great, and fall by their own weight. But they are never broken into ſuch ſmall pieces as thoſe of which they were originally conſtituted: For I doubt it is a miſtake to ſuppoſe, as ſome do, that there is a perpetual revolution and circle in human affairs. So far from that, it appears to me, that men are ſtill going farther and farther off, not from the ſtate of nature only, but from the original conſtitution of ſociety.

This progreſs in civil ſociety, and the many changes and revolutions it is ſubject

I reckon a better authority in what relates to the Indians of that country than any thing we have printed.

to, plainly ſhew, that it is not from nature, but of human inſtitution. For *nature* is permanent and unchangeable, like its *author*: And, accordingly, the wild animals, who are undoubtedly in a ſtate of nature, ſtill preſerve the ſame oeconomy and manner of life with no variation, except ſuch as change of circumſtances may make abſolutely neceſſary for the preſervation of the individual or the ſpecies; and the variation goes no farther than that neceſſity requires.

CHAP. VII.

Authorities in ſupport of this Opinion concerning the natural State of Man, from antient Philoſophers and Hiſtorians, from Fathers of the Church, and modern Divines.

THUS I have endeavoured to prove, both by facts and argument, that the political ſtate among men is not from nature, but from inſtitution, and that man, in his natural ſtatute, is a wild animal, without language or arts of any kind. I ſhould now proceed to aſſign the cauſes that gave riſe to civil ſo-

ciety: But, before I do this, as I know my opinion concerning the natural ſtate of man will appear to many very extraordinary, I will endeavour to ſupport it by authorities likewiſe; firſt premiſing, that I would be underſtood to ſpeak only of his preſent nature, and of his preſent ſtate of exiſtence, not of any former more perfect ſtate. For, as I have obſerved elſewhere, both religion and philoſophy teach us, that man did once exiſt in a more perfect ſtate.

And I will begin with the authority of Horace, which is clear and deciſive in the caſe, as appears from the paſſage which I have made the motto of my book, and which I ſhall explain more particularly afterwards. And the greater regard is to be had to his authority, that he was not only one of the beſt poets the Romans ever had, but a very good philoſopher; and he was of that ſect of philoſophy among the antients, which, of all others, attended moſt to facts and obſervations: Whereas, the other antient philoſophers dealt more in theory and ſpeculation, than in facts *.

* It was a great ſaying of Epicurus—ου μαχεται τοις φαινομενοις—And the philoſophers of that ſchool may be ſaid to have begun the experimental philoſophy.

The next authority that I ſhall mention is that of another poet, and a philoſopher too of the ſame ſchool, I mean Lucretius, who, in his fifth book, *v.* 923. *et ſeq.* deſcribes the primitive ſtate of our race very accurately, and like a philoſopher, who had inquired much into facts. After telling how we lived in the woods and mountains, without the uſe of fire, he adds,

> Nec commune bonum poterant ſpectare, neque ullis
> Moribus inter ſe ſcibant, nec legibus uti.
> Quod quoique obtulerat praedae fortuna, ferebat,
> Sponte ſua, ſibi quiſque valere et vivere doctus.

After which, he proceeds to relate how men aſſociated together, which he aſcribes chiefly to the fear of wild beaſts, and how they built huts, diſcovered the uſe of fire, and reared families. Even that way, ſays our author, the race would not have laſted.

> At varios linguae ſonitus natura ſubegit
> Mittere, et utilitas expreſſit nomina rerum.

So that, according to Lucretius, language was invented by men, after they had aſſociated together, and made ſome progreſs in civility.

The next authority I ſhall quote is ſtill a more reſpectable one. It is that of Plato. He, in his firſt book of laws, has ſpoken much of the renovation of arts, after nations had been deſtroyed by ſuch calamities as I have mentioned in the beginning of this book. He does not indeed reckon language among thoſe new-invented arts; but, that he did not think language natural to man is evident from this, that he has expreſsly ſaid, that ideas are not natural to man. The paſſage I allude to is in the Theaetetus; the words of which I have given at the bottom of the page *. In order to underſtand it perfectly, we are to conſider that he had been ſpeaking immediately before of the general ideas of ſubſtance, exiſtence, difference, likeneſs, &c.; which ideas, ſays he, the mind forms by going over and comparing things together. Then follows the paſſage quoted; the ſenſe of which is, 'That whatever comes to

* Οὐκουν τα μεν ευθυς γενομενοις παρεστι φυσει αισθανεσθαι ανθρωποις τε και θηριοις, ὁσα δια του σωματος παθηματα επι την ψυχην τεινει· τα δε περι τουτων αναλογισματα προς τε ουσιαν και ωφελειαν, μογις και εν χρονῳ δια πολλων πραγματων και παιδειας παραγιγνεται, οἱς αν και παραγιγνηται. *Tom.* 1. *p.* 186. *edit. Serrani.*

'the mind through impreſſions made upon 'the body is by nature perceived, both by 'men and brutes, immediately upon their 'birth. But the ideas reſulting from the 'compariſon of thoſe perceptions, (περὶ τούτων 'ἀναλώματα) relating to their nature and uſe, 'come with difficulty, and only in proceſs 'of time, to thoſe who attain to them, and 'are the fruit of much labour and inſtruc-'tion.' If this be the ſenſe of Plato's words, as I think it certainly is, he could not have uſed clearer to expreſs my notion, *That the perceptions of ſenſe are from nature, but the ideas formed from thoſe perceptions are acquired, not without much labour.*

Another proof of Plato's opinion being the ſame with mine concerning the natural ſtate of man, is what he ſays of men having learned to number from obſerving the riſing and ſetting of the ſun, the ſucceſſion of day and night, and months and years *. There was then a time, according to Plato, when men could not count one, two, three; and, if ſo, there muſt have been a time, when they were altogether without arts or civili-

* *Epinomis, p.* 1007. *Timaeus, p.* 1058. *edit. Ficini*

ty. For the uſe of numbers is the foundation of all the arts of life; nor can we conceive men carrying on any kind of buſineſs without the practice of arithmetic in ſome degree. It is therefore certainly true, what Plato has elſewhere ſaid, that, without the uſe of numbers, we have no knowledge at all †; and, in reality, we are no better than the brutes. Accordingly, the moſt barbarous nations, as we ſhall ſee afterwards, have the uſe of numbers.

Theſe authorities from Plato I lay the more weight upon, that he is as far as any philoſopher from degrading or vilifying our ſpecies, but, on the contrary, appears to have the higheſt idea of the dignity of human nature.

My next authority is one that I have already quoted, that of an hiſtorian, highly eſteemed by all men of learning, who has written an univerſal hiſtory, which may be conſidered as the hiſtory of man, I mean Diodorus Siculus. He ſays, in ſo many words ‡, 'that men lived at firſt

† *Epinom. p.* 1005. *et ſeq.*

‡ The words of Diodorus are: Τους δε εξ αρχης γεννηθεντας των ανθρωπων φασιν εν ατακτῳ και θηριωδει βιῳ καθεστωτας, (προαδην επι τας νομας εξιεναι, και προσφερεσθαι της τε

'dispersed, and subsisted upon the natural 'productions of the earth: That they had 'no use of speech, and uttered only inarti-'culate cries; but, having herded together 'for fear of the wild beasts, they invented 'a language, and imposed names upon 'things.'

There can be no authority more express than this; and I shall add only one more, though there be others, from a respectable author likewise, who was not only the greatest orator the Romans ever had, but their greatest philosopher, at least, the greatest writer of philosophy among them. By this description nobody can doubt that I mean Cicero. He has said expressly, that men originally lived after the manner of beasts, without reason, religion, or civility *.

βοτανης την προσηνεστατην και τους αυτοματους απο των δενδρων καρπους. και πολεμουμενους μεν ὑπο των θηριων, αλληλοις βοηθειν ὑπο του συμφεροντος διδασκομενους, αθροιζομενους δε δια τον φοβον, επιγιγνωσκειν εκ του κατα μικρον τους αλληλων τυπους (*al.* τοπους). Της φωνης δε ασημου και συγκεχυμενης ουσης, εκ του κατ' ολιγον διαρθρουν τας λεξεις, και προς αλληλους τιθεντας συμβολα περι ἑκαστου των ὑποκειμενων, γνωριμον φησιν αυτοις ποιησαι την περι παντων ἑρμηνειαν. *Lib.* 1. § 8.

* *Lib.* 1. *Rhetoric. in initio.* His words: 'Fuit quod-'dam tempus cum in agris homines passim, bestiarum

And, in another paſſage, ſpeaking of the Eleuſinian myſteries, he ſays it was by them that men were reclaimed from the brutiſh and ſavage life, and tamed and mitigated into humanity *.

This opinion, therefore, of mine may be falſe; but it is not new nor ſingular; and, being ſupported by ſuch reſpectable authorities, I may ſay the concurring teſtimony of all antient authors who have treated the ſubject, is, I think, entitled to a fair and candid

' more vagabantur, et ſibi victu ferino vitam propagabant; ' nec ratione animi quidquam, ſed pleraque viribus corpo- ' ris, adminiſtrabant. Nondum divinae religionis, non ' humani officii ratio, colebatur,' &c.

* *Nam mihi cum multa eximia divinaque videntur Athenae tuae peperiſſe, atque in vita hominum attuliſſe, tum nihil melius illis myſteriis*, QUIBUS, EX AGRESTI IMMANIQUE VITA, EXCULTI AD HUMANITATEM ET MITIGATI SUMUS. *De. leg. lib.* 2. *cap.* 14. And, according to Dr Warburton's commentary upon this paſſage, the origin of ſociety out of this brutiſh ſtate, and the invention of arts, was one of the things revealed to the initiated in the myſteries. *Divine Legat. book* 2. § 4. *pag.* 170. According to the opinion, therefore, of this moſt learned author, in the account that I have given of the origin of human ſociety and of *humanity* among men, I have broached no new doctrine, but only ſo far diſcloſed the myſteries of Ceres, into which indeed I have been initiated by the ſtudy of ancient authors, but never took any oath not to reveal them.

examination, which, however, it cannot expect from vulgar prejudice, but only from men of liberal thought, and more than common learning; and it is for ſuch only that I write.

To thoſe authorities, in ſupport of my opinion concerning the natural ſtate of man, I will add others tending to ſhew, that my notion of language being invented, is not only the opinion of heathen philoſophers, poets, and hiſtorians, but of chriſtian divines, both antient and modern. And I will begin with a holy Father of the church, renowned both for his piety and learning, and who, on account of his attachment to the catholic faith againſt the Arian hereſy, ſuffered perſecution under Valens, an emperor addicted to that hereſy. I mean St Gregory biſhop of Nyſſa, who, in his orations againſt Eunomius, a great Arian hereſiarch, expreſsly aſſerts, in more than one place, that language is of human invention *.

* The paſſages I refer to are in the 12th oration againſt this Eunomius. In *pag.* 761. *edit. Morelli, Pariſ. tom.* 2. he has theſe words: Ἡμεις τε γαρ φαμεν εφευρησθαι τοις ουσι τα γνωριστικα των οντων ονοματα δια της ανθρωπινης

This ſentiment of Gregory, a learned French divine, Father Simon, in his critical hiſtory of the Old Teſtament, adopts, and

ενοιας. In another paſſage, *pag.* 780. he maintains that things indeed are the workmanſhip of God, but language of men.—φυεται δε κατα το θειον βουλημα πραγμα, ουκ ονομα· ὡστε το μεν καθ' ὑποστασιν ον πραγμα της του πεποιηκοτος δυναμεως εργον ειναι, τας δε γνωριστικας των οντων φωνας, δι' ὡν τα καθ' ἑκαστον προς ακριβη τε και ασυγχυτον διδασκαλιαν επισημειουται ὁ λογος, ταυτα της λογικης δυναμεως εργα τε και εὑρηματα· αυτην δε ταυτην την λογικην δυναμιν τε και φυσιν, εργον Θεου. Και επειδη το λογικον εν πασιν ανθρωποις, αναγκαιως κατα τας των εθνων διαφορας, και αἱ των ονοματων διαφοραι θεωρουνται. From this laſt mentioned circumſtance of the diverſity of languages, he, in a following paſſage, *pag.* 781. infers that language cannot be from God. 'The nature of things, ſays he, 'is eternal and unchangeable, and affects our ſenſes in 'the ſame manner. Thus, fire, water, and air have the 'ſame effects upon all men.—Οὑτως και ἡ των ονοματων θεσις, ειπερ ην εκ του Θεου τοις πραγμασιν εφηρμοσμενη, πασιν αν ἡ αυτη ην. Νυνι δε των μεν πραγματων ἡ φυσις, ἁτε δη παρα του Θεου πεπηγυια, μενει ακινητος, αἱ δεσημαντικαι τουτων φωναι προς τοσαυτας γλωσσων διαφορας διεσχισθησαν, ὡς μηδε αριθμησασθαι το πληθος ευκολον ειναι. And he concludes the argument in this manner, *pag.* 792.-----Ὡστε μενει παγιος ἡμιν ὁ λογος ὁ τας ανθρωπινας φωνας της ἡμετερας διανοιας εὑρηματα ειναι διοριζομενος· Ουτε γαρ εξ αρχης ἑως ὁμοφωνον ἁπαν ην ἑαυτῳ το ανθρωπινον, Θεου ῥηματων τινα διδασκαλιαν γεγενησθαι τοις ανθρωποις, παρα της γραφης μεμαθηκαμεν· ουτε εις ποικιλας γλωσσων διαφορας διατμηθεντων, ὁπως αν ἑκαστος φθεγγοιτο θειος επεστατησε νομος· αλλα θελησας ὁ Θεος τους ανθρωπους εν αλλαις γενεσθαι

ſays, that neceſſity made men invent language; *lib.* 1. *cap.* 15.

I may appear too fond of great authorities, when I quote a moſt learned divine of high rank in the church, ſtill living, I mean Dr Warburton, who has ſaid expreſsly, that both writing and language were invented out of neceſſity, to communicate mens thoughts to one another; *Div. leg. book* 4. *ſect.* 4. But, if I quote at all, I muſt quote fairly; and, therefore, I muſt do the Doctor the juſtice to ſay, that, in another paſſage of the ſame ſection, he ſays, as expreſsly, that God taught the firſt men language.

γλωσσαις, αφηκεν ὁδῳ την φυσιν πορευεσθαι, κατα το αρεσκον διαφθρουσαν παρ' ἑκαστοις τον ηχον προς την των ονοματων Σαφηνειαν. And, in another paſſage, *pag.* 790. he treats it as a notion altogether ridiculous, that the power of God ſhould ſhew itſelf in words and ſyllables, or that man by his natural faculties ſhould not be able to invent them. To ſuppoſe this, he ſays, is to believe that God would act the part of a grammarian, and employ himſelf in teaching language, is Jewiſh folly, and much below the ſublimity of the Chriſtian theology, *pag.* 779. In ſhort, he ſeems to think, with the poet, that

> ———*putare aliquem nomina diſtribuiſſe*
> *Rebus, et inde homines didiciſſe vocabula prima,*
> *Deſipere eſt.*
>
> LUCRET.

Thus it appears that it is by no means an agreed point, even among thoſe who are learned in the ſcripture, that language was revealed; but that, on the contrary, divines differ from one another, and ſometimes the ſame divine from himſelf. I ſhall, therefore, I hope, be allowed, without the imputation of impiety, to ſuppoſe it at leaſt poſſible, that language may have been invented; and I have ſaid no more. I will only add, that thoſe authors, who are of opinion that language was invented, I think I may ſet down as authorities likewiſe in ſupport of my opinion, concerning the natural ſtate of man. For it ſeems impoſſible that they could have conceived the ſtate of man, before the invention of language, to have been different from what I have repreſented it to be.

I have ſeen a ſmall treatiſe lately publiſhed in Glaſgow under the title of 'An Attempt to ſhew that the Knowledge of God has been, in all Ages, derived from Revelation or Tradition, not from Nature,' in which a very different repreſentation is gi-

I have quoted the above paſſages from St Gregory, to ſhew, that Photius judges well, when he commends not only the learning and piety of that author, but the elegance of his ſtyle.

ven of human nature. According to this author, man, inſtead of being able to invent all the arts of life, and language among the reſt, as I ſuppoſe, and to diſcover the great author of his being, could not, by his natural faculties, do ſo much as provide for his own ſubſiſtence; ſo that, not only language, but all the neceſſary arts of life, thoſe by which we are fed, clothed, and lodged, weapons for defence, and perhaps, ſays he, the implements of huſbandry, were all revealed to us, as well as the being of a God; p. 31. This ſyſtem, by magnifying the neceſſity of revelation ſo much, may appear, at firſt ſight, to be very pious, and I have charity enough for the author to believe that it was written with a pious intention. But, upon a thorough examination, it will, I am perſuaded, appear to the judicious reader highly impious, as it overturns at once natural religion, which is the only foundation on which revealed can ſtand; and, with natural religion, human reaſon, and even that natural ſagacity which God appears to have beſtowed upon all animals, commonly known by the name of *inſtinct*, by which they are enabled to provide for their ſuſtenance and defence. Now I think it is much more for the honour of

the Creator, as well as the creature, to ſuppoſe that man was at firſt created with powers ſufficient to diſcover all that was neceſſary for human life, and even to inveſtigate the great Author of his being, than to ſuppoſe him originally a mere puppet, moved and directed in every thing by the ſame power that made him,

Nervis ut mobile lignum.

Such an *automat* human art can produce; but a real animal, and eſpecially an animal ſuch as man, with natural powers which make him capable of acquired improvements, to which no bounds can be ſet, is truly a work worthy of omnipotence.

So far, however, I agree with this author, that, if we hold language to be revealed, we cannot ſtop there, but muſt maintain that all the other arts of ſocial life were likewiſe revealed; and, firſt of all, the uſe of fire, which is the foundation of all the reſt. And indeed our becoming ſo familiar with an element ſo terrible to all animals in their natural ſtate, as to make it a neceſſary of life, and not to be able to live without it, has fairer pretenſions to revelation, than any thing elſe be-

longing to civil life. Accordingly the antient mythologiſts tell us, that it came from heaven, not honeſtly indeed, but ſtolen, as they ſay. For, as they thought that the uſe of fire had produced much miſchief to man *, they would have held it impious to maintain that it was the gift of Heaven; whereas, ſome religious men of our time ſeem to think that all the many inventions of men ought to be conſidered as coming immediately from God, without diſtinction, whether they have been uſeful or pernicious to mankind.

* *Poſt ignem aetheriâ domo*
Subductum, macies et nova febrium
Terris incubuit cohors;
Semotique prius tarda neceſſitas
Lethi corripuit gradum.

The philoſophy of theſe lines is, that the uſe of fire, and the invention of all the arts depending upon it, that is, in one word, all the arts of civil life, have been pernicious to mankind. This is an inquiry which does not belong to our ſubject; and all I ſhall ſay of it at preſent is, that it goes altogether out of the ſight, not only of the vulgar, who do not conceive that man can exiſt without the uſe of fire, but even of our modern philoſophers, all except that ſingular genius, which this age has produced, Mr Rouſſeau.

CHAP. VIII.

Of the Cauſes which gave riſe to civil Society.

I Think I have ſhewn very clearly, in the preceeding chapters, from facts, arguments, and authorities, that civil ſociety, which alone could produce a language, is not from nature, or coeval with the animal, but muſt have had a beginning; and the queſtion now to be examined is, how it began? for it is evident, that there muſt have been ſome cauſe of a change ſo great as from a *ſolitary*, or at leaſt an animal *not political*, to a *ſocial* and *political* animal. And, I ſay, that the ſame cauſe that firſt produced ideas, and made men rational creatures, did alſo make them ſocial and political, and, in proceſs of time, produced all the arts of life; and this cauſe is no other than the neceſſities of human life:

Hinc variae venere artes: Labor omnia vicit
Improbus, et duris urgens in rebus egeſtas.

For not only did this want produce what is called the neceſſary arts of life, but, after thoſe firſt wants were ſupplied, there aroſe another want very urgent likewiſe, I mean, the want of occupation, of pleaſure, and amuſement, which gave birth to the pleaſurable arts; and, when the mind came to be cultivated, there aroſe a curioſity, and deſire of knowledge, which produced the ſciences.

But the neceſſities we are now ſpeaking of were, either the want of ſubſiſtence, or of defence againſt ſuperior force and violence. As to the want of ſuſtenance, it appears evident, that, in certain countries and climates, the natural produce of the earth is ſufficient to maintain man, as well as other animals, without either ſociety or arts: But, in the firſt place, he may multiply ſo much, that the ſpontaneous growth of the earth, without art or culture, cannot maintain him; or he may go to countries and climates which by nature are not fitted to ſupport him. In either of theſe caſes, he muſt have recourſe to ſociety and arts. It is, by means of theſe, that man has multiplied more than any other animal of equal ſize, and has become an inhabitant of every country and climate; whereas, e-

very other animal has only certain countries or climates where it can ſubſiſt.

The other motive which I mentioned, as inducing men to enter into ſociety, was ſelf-defence; the neceſſity of which will appear the greater, if we conſider two things: *Firſt*, That man is by nature weaker, and not near ſo well armed, as many of the beaſts of prey; and, *ſecondly*, That he is the natural prey of all thoſe beaſts, when they think they can maſter him; whereas ſuch beaſts do not prey upon one another; by which I mean, not only that a lion does not prey upon a lion, but that he does not prey upon a tiger, or wolf, or any other carnivorous beaſt, though of leſs ſize or ſtrength, unleſs perhaps in caſes of extreme neceſſity. But man is the common prey of them all; and ſome of them who have taſted of his fleſh are, like the Indians above mentioned, fonder of it than of any other; which is ſaid to be the caſe of the *Hippopotamus* or river-horſe in Egypt *. In this ſo diſadvantageous ſituation, ſurrounded by ſo many enemies, nature appears to have provided no defence for man

* See *Maillet* the French conſul's account of *Egypt*.

but ſuperior ſagacity. Nor would even that have availed him in the ſingle ſtate; but it directed him to aſſociate himſelf with others of the ſame ſpecies; to act in concert with them; in ſhort, to inſtitute civil ſociety, and invent arts; and, among others, that great inſtrument of ſocial life, *Language*, without which mankind never could have proceeded far in the invention of arts. But, with the aſſiſtance of language, ſociety, arts, and ſciences, it is hardly poſſible to ſet bounds to the progreſs of an animal, the moſt ſagacious and inventive, as well as the moſt imitative of any that has been hitherto diſcovered; and who has from nature an inſtrument of art, which may be called the *inſtrument of inſtruments*, as by it he both makes and uſes other inſtruments; I mean, the *human hand*, without which he could not, though poſſeſſed of ſuch ſuperior talents of mind, perform the works of art. He has already made himſelf the lord of this lower world, and acquired dominion over animals very much ſtronger and fiercer than he, and by nature much better armed. The face of the earth he has changed by his art and induſtry, and even the elements and powers

of nature he has made ſubſervient to his purpoſes.

Audax omnia perpeti
Gens humana.——
Expertus vacuum Dædalus aëra
Pennis non homini datis *.
Perrupit Acheronta Herculeus labor.
Nil mortalibus arduum.

* This ſtory of *Daedalus* is no doubt a poetical fiction, though, like other poetical fictions, it has a foundation in hiſtorical truth; for the fact appears to have been, that Daedalus made his eſcape from Crete in a ſwift-ſailing veſſel of his own invention. But it is not a fiction, that Biſhop Wilkins, a moſt ingenious as well as learned man, did try to invent an *art of flying*, and was ſo confident of his ſucceſs, that he ſaid, he did not doubt but that he ſhould hear men calling for their *wings* as they now call for their *boots*.

CHAP. IX.

Continuation of the ſame Subject.—Some countries not fit to maintain Men in the Natural State.—All countries may be overſtocked with Men, as well as with other Animals.—The Remedies in ſuch a caſe.

THE origin of human ſociety is a ſubject of great curioſity, and of great importance in the hiſtory of man. I ſhould far exceed the bounds of my work, if I were to treat of it at as great length, and with as great accuracy, as it deſerves; I cannot however diſmiſs it without ſome further obſervations.

It appears to me, that, without one or other of thoſe two cauſes which I have aſſigned for the origin of ſociety, there never would have been ſociety, language, or arts, among men: And, could we ſuppoſe a country naturally ſo fruitful as to produce, at all times of the year, food in abundance

for men, however numerous; and if we could alſo ſuppoſe the climate of ſuch a country ſo mild as not to require any protection from art againſt it, which is truly the caſe in many countries; and if we could further ſuppoſe, that there were there no animals of ſuperior ſtrength, with which men were obliged to contend,—I do not ſee how it ever could have happened, in ſuch a country, that men ſhould have aſſociated, and inſtituted civil ſociety.

One thing at leaſt is certain, that in fruitful countries, and benign climates, men can live very well in the natural ſtate, and may continue a long time in that ſtate; and I think it is equally certain, that, in rude climates, and barren countries, they cannot ſubſiſt at all without ſociety and arts. In ſuch a country as Canada, for example, which is covered for ſeveral months of the year with deep ſnow, how is it poſſible the Indians could live without the arts of fiſhing and hunting, by the firſt of which they ſupport themſelves in the ſummer, and by the laſt in the winter? As it is, they very often periſh by hunger; but, without thoſe arts, or agriculture, and the art of preſerving, as well as raiſing, the fruits of the earth, it is

evident they could not live a year to an end. For, ſuppoſing that men could ſubſiſt upon herbs or foliage, as horſes and cattle can do, without ſeeds or fruits, (which however I do not believe); or ſuppoſing that they could be nouriſhed by the roots of certain vegetables, to be found wild even in the northern countries, which, for any thing I know, may be the caſe; and ſuppoſing further, that they could dig for them with their fingers, as the wild girl above mentioned, whom I ſaw in France, told me ſhe did; where are leaves or herbage to be found in ſuch countries for one half of the year? And how could ſingle men, without inſtruments of art, dig for roots in ground hardened like iron by froſt, and covered with five or ſix feet of ſnow?

From theſe conſiderations I think we may infer, that men never could have lived in the natural ſtate in ſuch countries; that is, without ſociety and arts; and conſequently, that in thoſe countries the human race never could have a beginning, and that therefore they muſt have been peopled from milder climates, by tribes and colonies of men already civilized, and who brought with

them arts, by which they were enabled to ſubſiſt in thoſe rougher climates.

And this explains a fact in the hiſtory of man, which I hold to be certain, as both ſacred and profane hiſtory agree in it, That the progreſs of the human race has always been, ſo far as we can trace it, from the eaſt, and particularly from the ſouthern parts of Aſia, where, according to our ſacred books, the human race firſt began. For thoſe parts of Aſia are a much finer country than Europe, and have always produced finer bodies of men, and other animals, as well as better vegetables *. This of itſelf makes it highly probable, even if it were not atteſted by hiſtory, that men having firſt aſſociated themſelves in thoſe milder and more fruitful regions of Aſia, did from thence ſpread themſelves into Europe, and other parts of the world, where the climate was not ſo propitious to the human race, and there ſubſiſted by arts which they had imported †.

* This is an obſervation of Hippocrates the phyſician, in his treatiſe, *De aëre, aquis, et locis*, § 3. *p.* 288.

† It cannot be doubted that man, in a warm climate and good ſoil, can ſubſiſt upon the natural fruits of the earth. In the new diſcovered iſland of Otaheite,

But the moſt fruitful country may be overſtocked with any animal, and particularly with man, who I believe is maintained with more difficulty, even in his natural

for example, the inhabitants pull bread off trees, which grow with no culture, for about nine months in the year; and, when this food fails, it is ſupplied by nuts and other wild fruits. It is for this reaſon, I ſuppoſe, that Linnaeus makes ſuch climates to be the native country of man, where he lives naturally and of choice; whereas, in other climates, he lives only by compulſion, *non natura, ſed coacte*. If this be ſo, the human race muſt have begun in thoſe countries, where they would ſubſiſt for ſome time upon the natural fruits of the earth, in the manner that the Orang Outangs do in certain parts of Africa. Then becoming too numerous to live in that way, they would invent arts, ſuch as hunting, fiſhing, and agriculture; and when even thoſe arts became inſufficient for their ſubſiſtence, they would be obliged to move to other climates leſs favourable, and there ſubſiſt by the arts which they had brought with them. And in this way the whole earth has been at laſt peopled, even the worſt parts of it, lying

——*extra anni Soliſque vias*,

and altogether uninhabitable by every other animal of the milder climates.

This is, according to my ſyſtem, and, as it would ſeem, that of Linnaeus, a ſhort abridgement of the hiſtory of man.

ſtate, than other animals of much larger ſize: For I hold, that he cannot ſubſiſt upon herbage or foliage alone *, but muſt have ſeeds, fruits, roots, or fleſh. And it is to be conſidered, that man muſt have multiplied very much in his natural ſtate, as he likewiſe does in the firſt ſtages of ſociety †. Now, when men were ſo multiplied that the natural fruits of the earth could not maintain them, they were under a neceſſity to practiſe one or other of the following methods; either to diſperſe, and go in ſearch of other countries, where they might ſubſiſt more at their eaſe. But this in many caſes might be impracti-

* The *Egyptians* pretended, that they had ſundry aquatic plants growing in their river, which were ſufficient for the aliment of man, particularly one they called the *Lotus*. If this be true, it is an exception to my rule; and is a very good argument, and, as ſuch, was uſed by the Egyptians, in favour of the antiquity of the human race in Egypt, as being the country of all others the moſt proper to maintain man in his natural and *infantine* ſtate, as it may be called, without ſociety or arts. See *Diodorus Siculus, in initio.*

† This is ſo true, that it was the ſtudy of the ancient legiſlators to prevent the too great increaſe of their citizens; for which purpoſe they uſed ſtrange expedients, ſuch as allowing the expoſition of children, and even the unnatural paſſion of men for one another. See Ariſtotle *de republicâ, lib.* 2. *cap.* 10.

cable: For the countries round them might be, and in proceſs of time certainly would be, as much overſtocked as theirs; or they might be hindered by ſeas, great rivers, or impaſſable deſarts. To all which may be added, the natural averſion that every animal has to quit its native country, and the haunts to which it has been accuſtomed. Or, 2*da*, They muſt prey upon other animals, or upon one another. But this, beſides the danger of it, would hardly be practicable by man ſolitary, unaſſiſted by arts, and without other weapons than thoſe which nature has given him. Or, *laſtly*, They muſt aſſociate and provide in common what ſingly they could not procure. And this laſt method, it is natural to think, ſo ſagacious an animal as man would prefer to either of the other two *.

It would lead me much too far from my purpoſe to inquire, what methods were firſt uſed by men aſſociated for increaſing their

* What extremities men have been reduced to for ſubſiſtence, even in the firſt ages of ſociety, is evident from a fact which cannot be doubted, that ſeveral of the barbarous nations, at this day, uſe for food the vermin of their own bodies.

natural ſtock of proviſions. I will only ſay in general, that I believe hunting muſt have been among the firſt;

Cum jam glandes atque arbuta ſacræ
Deficerent ſilvae, et victum Dodona negaret.
VIRG. *Georgic.*

For, as I have already obſerved, the natural fruits of the earth were the firſt food of men. My reaſon for thinking that hunting was the firſt expedient they fell upon for ſupplying the want of thoſe fruits is, that it is much eaſier than planting, ſowing, or any kind of culture of the ground, before inſtruments of art were invented. For man, by his natural ſtrength and agility, with the addition only of a ſtick, which, as we have ſeen, is uſed even by the Orang Outangs, whom ſome authors will not allow to be of our ſpecies, can maſter a great number of quadrupeds, eſpecially if he be aſſiſted by numbers; and I remember the wild girl I have ſo often mentioned told me, that, with no other weapon than a bludgeon, which ſhe called a *Boutou* *, ſhe was able, with the

* It was from this circumſtance that I diſcovered ſhe had been in one of the *Caribbee* iſlands; for in a French account publiſhed of thoſe iſlands, by one *Sieur la Beaud*,

aſſiſtance of the black girl her companion, to kill as much game as, together with the roots they dug up, maintained them in their travels through the woods. One natural conſequence of hunting would be, that, in proceſs of time, they would think of the expedient of catching certain animals alive, taming them, and breeding out of them, which would greatly add to their ſtock of proviſions. This produced the paſtoral life, which is the only means of ſubſiſtence of whole nations at this day. But it may be obſerved, that, unleſs in countries where flocks and herds can live through the winter upon the natural produce of the earth, it is impoſſible that men can be ſupported in that way, without the aſſiſtance of other arts, and particularly agriculture. And this is a good reaſon why the Indians of North America, not having the art of agriculture, have never attempted the paſtoral life, or to tame any animals other than dogs that live upon fleſh.

But I have no occaſion to trace any further the progreſs of men in the arts of ſubſiſtence; it is ſufficient for my preſent pur-

I find that the *Caribbees* uſe that weapon, and call it by the ſame name.

poſe, that I have brought them together by means of the firſt cauſe of aſſociation I have mentioned, viz. the *want of the neceſſaries of life*; and I proceed next to examine the ſecond reaſon I mentioned for the inſtitution of ſociety, *ſelf-defence*.

But, before I come to that, it may not be improper to obſerve, that this change of man from a frugivorous to a carnivorous animal muſt have produced a great change of character. What effect the mere feeding upon fleſh, inſtead of vegetables, may have upon the temper and diſpoſition of the mind, I ſhall not at preſent inquire; but it is the way of procuring this fleſh-diet, by the deſtruction of other animals, that has produced the change I ſpeak of. While man continued to feed upon the fruits of the earth, he was an innocuous animal, and, like others who lived in the ſame way, more diſpoſed to fly from an attack than to make one. But, as ſoon as he became a hunter, the wild beaſt, which is part of his compoſition, became predominant in him. He grew fierce and bold, delighting in blood and ſlaughter. War ſoon ſucceeded to hunting; and the neceſſary conſequence of war was, the victors eating the vanquiſhed, when they could

kill or catch them; for, among ſuch men, war is a kind of hunting *. In this ſtate, man, if not tamed, or ſubdued by laws or manners, is the moſt dangerous and moſt miſchievous of all the creatures that God has made; much more ſo than any lion or tiger, or any other the fierceſt animal that roams the foreſt. It was in this ſtate that Orpheus, the firſt civilizer of men in this weſtern part of the world, found the ſavages of Greece, when he imported among them the arts he had learned in Egypt, and tamed them by religion and muſic,

Dictus ob hoc lenire tigres rabidoſque leones †;

* It is ſo at this day in many parts of the earth; and, I am perſuaded, it was ſo originally among all nations after they became hunters and fleſh-eaters. In the language of the *Iroquois* of North America, *to put on the cauldron*, is to declare war, as *Charlevoix* informs us. And, as late as the days of Gabriel Sagard, who travelled in the country of the Hurons in 1630, theſe people were ſtill in the practice of boiling their enemies in a great cauldron, and feaſting upon them; p. 217. of his travels. And, though thoſe hunters have given over eating their enemies, it is certain, there is nothing in which they delight ſo much as blood and ſlaughter.

† *Silveſtres homines ſacer interpreſque deorum*
Cædibus et VICTU FOEDO *deterruit Orpheus:*
Dictus ob hoc lenire tigres rabidoſque leones.
HOR. *Art. Poet.* 392.

which is one of the fictions of the Greek poets, where the truth of hiſtory is eaſily ſeen through the vail of fable.

CHAP. X.

What Dangers made Men aſſociate for the ſake of Self-defence.

MAN, in the natural ſtate, muſt ſtand in need of defence, either againſt wild beaſts, againſt men of the ſame country, or, laſtly, againſt foreign invaders.

As to the firſt, thoſe who know no more of the hiſtory of man than what they have learned from obſerving the cuſtoms and manners of their own and other modern nations of Europe, will hardly believe, that there was a time when the wild beaſts diſputed

Where the *fœdus victus* is no doubt the eating one another; from which, among other barbarous cuſtoms, Orpheus reclaimed them.

with us the empire of this earth: But nothing is more certain,

Tempora ſi faſtoſque velis evolvere mundi.
HOR.

And it is likewiſe certain, that they very often prevailed in the diſpute, till art and numbers came to the aſſiſtance of our natural ſtrength and agility. And, therefore, the firſt heroes, and greateſt benefactors of mankind, next to the inventors of arts, were thoſe men of ſuperior ſtrength and valour, who fought with and deſtroyed wild beaſts. Such was Hercules of old: I mean, not the Greek Hercules, the ſon of Amphitryon, who came too late into the world to have much buſineſs of that kind; but the Egyptian Hercules, ſeveral thouſand years older, whoſe exploits the Greeks, with their uſual vanity, aſcribed to their hero, who was indeed originally from that country, and from thence probably had his name *. The arms which the la-

* He had at firſt another name, which I have forgot; but afterwards his parents, who were both originally from Egypt, thought proper to give him the name of the Egyptian god. See Herodotus, *lib.* 2. *cap.* 43. *et* 44. who tells us, that, in order to ſettle the point of antiqui-

ter Greek fables (for they are not ſo old as Homer *) give to this hero, were very probably the arms of his antient nameſake of Egypt; I mean the club, and the lion's ſkin, theſe being the only arms then known. But experience would ſoon diſcover, that it was neceſſary to have other and better arms againſt enemies ſo much ſuperior in bodily

ty betwixt the Egyptian and Grecian Hercules, he made two voyages, one to Tyre, the other to Thaſus; in each of which places there was a temple of Hercules, both long prior to the ſon of Alcmena: From whence he very juſtly concludes, that theſe temples were erected to the Egyptian Hercules. Such was the curioſity and diligence of this hiſtorian, who had ſo little of the vanity of his countrymen, that in this, and ſeveral other inſtances, he was at uncommon pains to refute their vain lies.

* According to this poet, he wore neither lion's ſkin nor club, but was armed with a bow and arrows; and ſo he is introduced among the other ſpirits which appeared to Ulyſſes, in the 11th book of the *Odyſſey*, *verſ.* 606. And, upon this occaſion, it may be obſerved, that a great deal of the Greek fables and religion is poſterior to the days of Homer: For, in his time, neither this Hercules, the ſon of Alcmena, was worſhipped, nor Caſtor and Pollux. And Bacchus, who became ſo great a god afterwards, is, I think, but once mentioned in Homer, and that in a way that does him no honour; for he is repreſented as running away from Lycurgus, the King of Thrace, and hiding himſelf in the ocean.

ſtrength *; and that it was alſo neceſſary to avail themſelves of their numbers, and to act together in concert, both in attacking and defending. And this I hold to be one kind

* Even after arms were invented in Greece, and the uſe of them well known, the Caledonian boar was deſtroyed with much difficulty, and not till he had killed a great many of the nobleſt youth of Greece, as Homer informs us, *Iliad*, ix. 542. And, in much later times, as late as the days of Crœſus King of Lydia, a boar laid waſte the lands of the Myſians, a people of Aſia, in the neighbourhood of Crœſus; and they not being able to deſtroy him themſelves, ſent to Crœſus for aſſiſtance; who accordingly ſent them his ſon, at the head of a choſen body of hunters, *Herod. lib.* 1. *cap.* 36. I know the mere modern reader will reject all theſe ſtories as fables, and will not even believe Panſanias, who ſays, that he ſaw a tuſk of the Caledonian boar, which was preſerved as late down as his time, and of which he gives us the dimenſions, *lib.* 8. *cap.* 45. But the learned will have no doubt of the truth of either of the ſtories, knowing well, that even what is called the fabulous hiſtory of Greece, is for the greater part true hiſtory; mixed indeed with many romantic circumſtances and ſuperſtitious tales, which a little ſagacity and critical diſcernment can eaſily ſeparate from the truth of hiſtory. As to Herodotus, though, I know, his authority is by many thought no better than that of Homer, and the other Greek poets, yet I will venture to affirm, that whoever underſtands his hiſtory, and has diligently ſtudied it, will hardly doubt of what he relates, not as a hearſay, (for he has many ſtories of that kind which he tells us he does not believe himſelf), but as a ſimple hiſtorical fact. As to this article, concerning the difficulty of mens

of ſelf-defence that made aſſociation and a public neceſſary; ſo neceſſary, that Diodorus Siculus mentions no other reaſon for mens herding together *.

The ſecond reaſon, under this head, that I aſſigned for aſſociation was the violence and injuſtice which men had to fear from one another. For as ſoon as men began to multiply very much in any country, there would neceſſarily be an interference about proviſions; about their layers, where they ſlept, or reſted, and ſheltered themſelves from the weather;

defending themſelves againſt wild beaſts in the firſt ages of the world, Diodorus Siculus, in his 3d book, informs us of a ſavage nation in Africa, that he calls ῥιζοφάγοι, from their feeding upon roots, who, he ſays, not having the uſe of arms, could not defend themſelves againſt lions, and would have been quite deſtroyed by them, if it had not been for a multitude of flies that came at a certain ſeaſon of the year, and drove away the lions. It is in a ſituation ſuch as that of thoſe *root-eaters*, that I ſuppoſe men would, from the motive of ſelf-defence, enter into political ſociety, and invent arts of defence. And not only by ſuch fierce beaſts have countries been rendered not habitable, but alſo by reptiles, ſuch as ſerpents; and ſmall animals, ſuch as mice, frogs, and ſparrows, which, in ſeveral inſtances mentioned by Diodorus, *lib.* 3. *p.* 114. *Stephani*, have got the better of people with all the advantages of ſociety and arts, and driven them out of the country.

* *Diodorus, lib.* 1. *cap.* 8.

——*Glandem et cubilia propter;*

and, laſtly, about their females,

—Venerem incertam rapientes more ferarum.

HOR.

Such interfering would produce ſtrife and contention; of which the conſequence would often be wounds and death, and in which the ſtronger would always have the better, as we obſerve in the herds of other animals, where there is no other law but that of the ſtrongeſt. In this way there would be great violence, oppreſſion, and deſtruction of the ſpecies; to prevent which, ſo ſagacious an animal as man would be naturally led to form a kind of public, by the ſtrength of which the weaker might be made more powerful than the ſtronger, and the whole ſociety benefited in every reſpect.

By what I have ſaid here, I would not be underſtood to retract what I have ſaid above in oppoſition to Mr Hobbes, that the ſtate of nature was not a ſtate of war: For I perfectly agree with Monſ. Rouſſeau, that there are in that ſtate much fewer occaſions of quarrel than in the ſtate of ſociety; for, in the natural ſtate, men can quarrel only about the neceſſaries of life, and the gratifications of na-

tural appetite; whereas, in the civil ſtate, men quarrel about fame, power, pre-eminence, and all the numberleſs gratifications of vanity and luxury. But what I maintain is, that when men grow numerous, and the neceſſaries of life ſcanty, they muſt, like all other animals, prefer each himſelf to another, and that will of neceſſity produce ſtrife and contention. But this is not the conſequence of the natural ſtate in itſelf, but of the exceſſive multiplication of the ſpecies; againſt which nature has provided ſeveral remedies, ſuch as famine, peſtilence, inundation, extraordinary ſeverity of weather, and, among others, the deſtruction of the animals by one another, when proviſions become ſcanty.

The third reaſon of this kind I mentioned was protection againſt foreign invaders. This proceeds upon the ſuppoſition of aſſociations being already formed by ſome herds in the neighbourhood, for invading their neighbours, either from mere wantonneſs, and a ſpirit of conqueſt, which has produced many cruel wars among men; or for want of the neceſſaries of life, which has obliged men very often to leave their own country, and try to find out another. Such invaſion would

naturally lead the people of the country invaded to aſſociate themſelves, in order to take common meaſures for their defence.

One or other of theſe reaſons appears to me to have made men firſt aſſociate for the ſake of ſelf-defence; and this, joined with the want of the neceſſaries of life, accounts for the origin of ſociety among men.

CHAP. XI.

Anſwer to the Objection, That inſtinct was ſufficient to provide men with all the Neceſſaries of Life, and to defend them againſt their Enemies.

IT may be objected, That all the neceſſities I have mentioned, whether of ſuſtenance or defence, might be ſupplied by inſtinct, with which I have ſuppoſed man to be originally provided by nature, as well as other animals, for whoſe wants we ſee it is

ſufficient; ſo that the reaſons I have mentioned did not give riſe to ſociety; which therefore may ſtill be from nature, and not an adventitious ſtate, as I ſuppoſe it, introduced by the neceſſities of life.

This objection is pretty much the ſame with the argument which I ſtated in the firſt book, and endeavoured to refute, tending to prove, that our ideas are not from inſtinct*; and, if it be true, as I think I have ſhewn, that they are not from inſtinct, it will follow of neceſſary conſequence, that thoſe arts of ſuſtenance and ſelf-defence, which cannot be without ideas, are likewiſe not from inſtinct. I will, however, without repeating what I there ſaid, add ſome further obſervations concerning the difference betwixt inſtinct and art.

But, in the firſt place, it is to be obſerved, that I do not deny, that, in thoſe milder climates, which I ſuppoſe to have been the original country of men, nature has made ſufficient proviſion for the maintenance of men, as well as of other animals natives of the country. For thoſe countries abound with wild fruits, ſuch as yams, plantains, bananas, cocoa-nuts, and the like, which, I

* *Ch.* 13. *Pag.* 168.

am perſuaded, afford a more wholeſome diet for men, than any artificial fruits. In ſuch countries, men, as well as other animals, muſt increaſe ſo faſt, that one ſhould think the earth could not ſupport them. But nature has not only provided wonderfully for the preſervation of the ſeveral ſpecieſes of animals, but has alſo, as I have obſerved, contrived many ways to prevent their exceſſive multiplication. In India, the brute animals, tho' they be not conſumed for the food of man, nor wantonly deſtroyed, as in Europe, do not, however, multiply ſo much as that the country is incumbered with them, or not ſufficiently peopled with men; nor does any ſpecies of them multiply beyond its natural proportion, or in ſuch a degree as to deſtroy the reſt. In this manner, I am perſuaded, man, in his natural ſtate, would live with the other animals; but, in the civil ſtate, he has contrived means of ſubſiſtence, ſuch as hunting, fiſhing, and agriculture, by which his numbers are increaſed, much beyond the natural proportion, and more than thoſe of any other animal of the ſame ſize upon the face of the earth; and we are now to inquire, whether ſuch means of ſubſiſtence

could have been the effect of *inſtinct*; or, whether they be not produced by what we call *art*.

Betwixt theſe two there is this material difference, that inſtinct is a principle of action implanted in us as in other animals, by which we are directed to what is neceſſary for the preſervation either of the individual or the ſpecies; but without any knowledge of the end, or how the means conduce to the end; and, conſequently, without *will*, which never can be but where there is an end in view. Art, on the other hand, acts with knowledge of the end, and of the means by which it is attained; and conſequently its operations are voluntary, proceeding from motives influencing the will. But, beſides this capital difference, there are the following:

1*ſt*, All animals are directed by inſtinct to ſearch for, to find out, and to make uſe of the food which nature has provided for them. But it has not directed nor inſtructed them to multiply that food, and to make the earth produce more of it than it naturally produces. In other words, inſtinct does not teach us to till, ſow, or plant.

2*dly*, Inſtinct has directed us to make the

beſt uſe of all the parts or members of our body for procuring our ſubſiſtence; but it has not directed us to make artificial inſtruments, either for increaſing the quantity of food which nature has provided for us, or for bringing within our reach food which otherwiſe would, by our natural faculties, be inacceſſible to us.

3*dly*, Nature has directed every animal to the beſt uſe of thoſe arms, offenſive or defenſive, with which ſhe has provided the animal; but ſhe has not taught him either to make or to uſe any other; ſo that, whenever we ſee an animal uſing adventitious aids of that kind, we may be ſure that it is the effect of art. And if there were nothing elſe to convince me that the Orang Outang belongs to our ſpecies, his uſing ſticks as a weapon would alone be ſufficient. Horace therefore appears to have been very well inſtructed by his philoſophy in the progreſs of man from inſtinct to art, and from natural to acquired faculties, when he tells us, that men, as long as they were *mutum et turpe pecus*, that is, altogether in the natural or brute ſtate, fought, *unguibus et pugnis, glandem et cubilia propter;—dein fuſtibus*, that is, when they came to be a little advanced towards humanity,

and in the ſtate the Orang Outangs are at preſent; and then, *armis quæ poſt fabricaverat uſus*, that is, when they were ſo far advanced in civil life as to invent arts *.

The ſum of theſe differences betwixt art and inſtinct ſeems to amount to this, that inſtinct goes directly to the end it propoſes,

* " Cum prorepſerunt primis animalia terris,
" Mutum et turpe pecus, glandem atque cubilia propter,
" Unguibus et pugnis, dein fuſtibus, atque ita porro
" Pugnabant armis, quæ poſt fabricaverat uſus."

I will ſubjoin the reſt of the paſſage, as it ſhews that Horace's philoſophy perfectly agrees with mine in regard to the invention of language.

" Donec verba, quibus voces ſenſuſque notarent,
" Nominaque invenere: Dehinc abſiſtere bello,
" Oppida cœperunt munire, et ponere leges,
" Ne quis fur eſſet, neu latro, neu quis adulter."

Satir. III. *v.* 99. *et ſeqq.*

The diſtinction that Horace makes here betwixt *verba* and *nomina* I ſhall afterwards explain; but what I quoted the paſſage for at preſent is, to obſerve, that the progreſs according to Horace was, firſt the natural or brute ſtate, without language or arts of any kind; then the invention of certain arts, particularly the arts of attack and defence;—then language; and laſtly government and laws, and every other art of life, connected with, and dependent upon theſe. This ſyſtem, I believe, will, upon the ſtricteſt examination, be found the true ſyſtem of human nature; and a hiſtory of man would be nothing elſe than a commentary upon theſe few lines.

or does not go *far* about; whereas art takes a round, and performs its operations by ſtudying the nature of things, comparing ideas, and drawing conſequences from premices; *ex. gr.* Nothing appears to us more ſimple than the uſe of a ſtick for a weapon; yet the animal who uſes it muſt know, *1ſt*, the nature of wood, that it is a hard body; *2dly*, That any hard body, impelled upon another body with force, will make an impreſſion which may very much hurt or deſtroy that other body; *3dly*, That the manner in which the human hand can make this impreſſion in the moſt forcible way is, by taking a ſtick of a moderate length, and ſuitable thickneſs, by the one end, and in that way making the blow. All theſe ideas the Orang Outang muſt have formed from obſervation and experience, before he uſed a ſtick as a weapon-offenſive.

Another difference which we may obſerve betwixt art and inſtinct is, that as art is founded upon experience and obſervation, ſo it is improved by them; and it is by gradual improvements in that way that arts are perfected: But inſtinct, as it does not ariſe from experience, ſo it is not improved by it. And accordingly a ſwallow builds her neſt,

and a ſpider weaves his web, as well the firſt year as any year thereafter.

Thus it appears, that inſtinct and art are in their natures different, though in their operations they ſometimes ſeem to be the ſame. The bee, for example, forms her hexagon cells as accurately as if ſhe had been inſtructed by Euclid; yet it is impoſſible to believe, that ſhe underſtands geometry, and knows the rules by which ſhe works, or even the end for which ſhe works. It is therefore only inſtinct, but an inſtinct of an extraordinary kind, in which the wiſdom of the great Author of nature manifeſts itſelf more than it uſually does in the operations of brutes. Now there is not the leaſt reaſon to think that we ever had ſuch an uncommon inſtinct, or any other than what we obſerve in horſes, cattle, and other quadrupeds of this country. Such inſtinct certainly never could have taught us to till, ſow, or hunt, or to invent arms, either for attack or defence. It appears therefore evident, that our inſtinct could not have ſupplied thoſe wants which made ſociety neceſſary.

Before I conclude this chapter, I will make ſome obſervations upon the conſequences which the introduction of art has had with re-

ſpect to the numbers, both of men and of other animals. And, in the *firſt* place, as I have already obſerved, it is by the means of art that man has ſpread himſelf over the earth more than any other animal known, ſo as to be of all climates, and to inhabit countries which otherwiſe could not ſupport him. 2*dly*, It is by the ſame means that he has multiplied in the ſeveral countries much more in proportion than any other animal of the ſame ſize. But, 3*dly*, This I think could not have happened without the deſtruction of many other animals. With reſpect indeed to ſuch as we have tamed, it may be thought that we take ſo much care to provide food for them, which they would not have without our ſkill and induſtry, that they ſhould multiply more under our government than in their natural ſtate. But it is to be conſidered, on the other hand, what numbers we conſume of them in food, and how many more we deſtroy of them by hard labour, and by uſing them cruelly or unſkilfully. Beſides, they are not ſo healthy under our care, being houſed, and kept in a way not unlike that in which we keep ourſelves, as they would be in the natural ſtate. But

with reſpect to the wild animals, I think that there can be no doubt that they are greatly decreaſed by the empire which man has obtained over them: For in certain countries we have deſtroyed whole ſpecieſes of them, ſuch as we have found troubleſome or dangerous to us; as wolves, for example, in Great Britain and Ireland, and lions in every part of Europe. What remains of them we preſerve for our ſport and pleaſure: But, though they be under the protection of the laws in all the kingdoms, I believe, of Europe; yet thoſe laws have been ſo much neglected or evaded, and ſo many ways have been fallen upon of deſtroying them, that I hold the fact to be certain, that their numbers are decreaſing daily, even in Europe, and much more ſo in other countries, where the men ſubſiſt upon them, as in North America. I am perſuaded, therefore, that, with reſpect to us and the brutes, the general law of nature takes place, that no ſpecies can be increaſed beyond its natural proportion, but at the expence of others *.

* Man ſays *Momus*, is *the play-thing of Jove*, (το παιγνιον του Διος), or, as Mr Pope has rendered it, *the ſtanding jeſt of Heaven*. But if Momus, quitting his ſportive vein, ſhould aſſume a tone of keen ſatire, and virulent invective,

CHAP. XII.

Objection anſwered, That there could be no Society without language.—Inſtances of Such Societies.

I Will now try to ſolve Monſ. Rouſſeau's great difficulty with reſpect to the invention of language. He is convinced that

and if M. Rouſſeau ſhould lend him words, he would ſay, that man is the moſt miſchievous animal that God has made;—that he has already almoſt depopulated the earth, having in many countries deſtroyed whole ſpecieſes of animals, and continuing daily to deſtroy thoſe that remain, not only to gratify his luxury and vanity, but for mere ſport and paſtime. "What attonement, moſt pernicious *biped*, or *quadruped*, or whatever other title moſt offends thine ear, what attonement canſt thou make for this ſo great abuſe of thy ſuperior faculties, and this deſtruction of the creatures of God? None other, except to deſtroy thyſelf next, and ſo avenge the reſt of the animal race. This thou art doing as faſt as poſſible; and for this only I can commend thee. When this work is accompliſhed, then ſhall the true ſtate of nature be reſtored, and the real golden age return. Then ſhall *Aſtræa* viſit the earth again, whoſe lateſt footſteps are now no longer to be ſeen: So ſhall the reſt of the animal creation, freed from a tyranical and capricious maſter, live the life which nature has deſtined for them, and accom-

ſociety is abſolutely neceſſary for this invention; but he ſeems to think that language was as neceſſary for the conſtitution of ſociety. Now I will endeavour to ſhew, both from theory and fact, that animals may aſſociate together, form a community, and carry on in concert one common buſineſs, without the uſe of ſpeech.

For this purpoſe nothing elſe is neceſſary than that there ſhould be among ſuch animals ſome method of communication. If therefore there be other methods of communication, beſides that of articulate ſounds, there is nothing to hinder a ſociety to be conſtituted without the uſe of ſpeech. Now, that there are other methods of communication, is a fact that cannot be doubted: For there are inarticulate cries, by which we ſee the brutes communicate to one another their ſentiments and paſſions; there are imitative cries; and, laſtly, there is the expreſſion of looks, that is, the action of the face; and the geſtures of the body. In one or o-

'pliſh the end of their being: So ſhall even man himſelf 'if any of the wretched race yet remain, acquit provi-'dence of the imputations he has thrown upon it, and 'ſhew *that he was made upright, though he have found out many* 'inventions.'

ther, or all of theſe ways, it is evident that animals may underſtand one another ſo far at leaſt as to act in concert, and carry on ſome common buſineſs, which, according to Ariſtotle, is the definition of a political animal.

As to inſtances of animals acting in this way, without the uſe of ſpeech, I will not inſiſt upon ſuch animals as the bee or ant, becauſe I hold, that they act by inſtinct merely; that is, by a neceſſary determination of their nature, without any will or choice, and without any knowledge of the operations of one another, or even of their own; but I will give examples unexceptionable, of animals that act in concert, and by communication, and yet have no uſe of ſpeech.

And I will begin with the Beaver; which, as I have obſerved already, reſembles our ſpecies in this, that it is of an ambiguous nature, between the ſolitary and the ſocial, without any neceſſary determination to either way of life; ſo that he ſometimes lives in ſociety, and ſometimes by himſelf, according to the circumſtances and ſituation in which he finds himſelf. In ſuch an animal there muſt neceſſarily be choice and deliberation,

not inſtinct merely; and therefore I think his example will apply moſt appoſitely to our ſpecies. This animal is truly political, in the common ſenſe of the word, at leaſt when they are in the ſocial ſtate; for they live in what may be properly enough called villages, conſiſting ſometimes of twenty or five and twenty cabins, or little houſes, and theſe inhabited each by five or ſix, and ſometimes to the number of ten pairs; for they are all coupled in that way, male and female together. Theſe ſeveral families compoſe a community or ſtate, conſiſting commonly of an hundred and fifty or two hundred beavers, who work together in concert in all their public works, ſuch as felling trees, and building the dam of their pond. And of this great community each cabin is a part, forming a leſſer community, which works together in every thing relating to the cabin, ſuch as building it, and laying up a magazine of proviſions for it: For they have property among other things appertaining to the political life; and not property belonging to the ſtate only, which is commonly the caſe of the Indians of North America, but property belonging to each cabin. The conſtruction of their

dikes and cabins, as deſcribed by Monſ. Buffon, from whom I take this account *, is really wonderful, particularly that of the dike, which is a ſtupenduous work for an animal of ſo ſmall a ſize, and built with ſo much ſkill, that I do not think human art could build it better. They have not, however, that mark of humanity which I obſerve in the Orang Outangs, of uſing any inſtrument beſides thoſe with which nature has furniſhed them, viz. the members of their own body; for, though they have very ſhort forelegs, with feet ſhaped like a hand, having five fingers divided, with which they feel any thing, lay hold of it, and carry it to their mouths; and though they can eaſily erect themſelves upon their hinder parts, and very often do ſo; yet they never uſe a ſtick, or any other inſtrument of art. But, except in this particular, and that they have no uſe of ſpeech, they are as much a political animal as man, only much better policed than any community of men that we know at preſent: For they live together, and carry on their public affairs in the

* *Hiſtoire Naturelle, tom.* 8. *p.* 289.

greateſt peace and harmony, and with the exacteſt obſervation of juſtice, never injuring one another, either in their perſons or properties. What ſigns or methods of communication they uſe in carrying on their works Monſ. Buffon does not mention, but it is certain that they muſt uſe ſome; and, if their policy were carefully obſerved, I am perſuaded it would be found, that there is an eſtabliſhed government among them of one kind or other, without which I think it is impoſſible that the affairs of their community could be ſo regularly conducted.

In ſuch a ſtate I imagine men were, and muſt have been, perhaps for ages, before a language was invented. They muſt, I think, have been aſſociated as the beavers are, living together in cabins or huts *, and carrying on of concert ſome common work, either for their ſuſtenance, ſuch as hunting or fiſhing, or in the way of defence or attack. In ſhort, they muſt have been united in the political life; for the mere herding together, without ſuch union, would not be

* The huts of the New-Hollanders are not near ſo well built as thoſe of the beavers, and ſerve only for a cover to the head and ſhoulders, as I am informed by the travellers who have lately been in that country.

ſufficient for the invention of ſo difficult an art as language, or indeed of any thing which deſerves the name of art. For though I do not deny, that man, by his natural ſagacity, and by experience and obſervation, might perhaps, towards the cloſe of a long life, form ſome imperfect ideas, even without the help of political union, I think it is impoſſible that he could invent any thing deſerving the name of *art*. But it is needleſs to dwell longer upon this inquiry: For, as I have already ſaid, I do not think there is any reaſon to believe, that men ever herded together without acting in concert.

Of ſo difficult invention does this art of language appear to me, that I imagine men muſt previouſly have invented and practiſed more difficult arts than the fiſhing practiſed by thoſe inhabitants of New Holland whom Dampier mentions, or by the fiſh-eaters of Diodorus Siculus. And though thoſe New-Hollanders have the uſe of ſpeech, I can hardly believe that they have invented it, but have learned it by intercourſe with ſome other nation; and this I believe to be true of all the nations that have been found in ave-

ry barbarous ſtate, and yet having the uſe of ſpeech.

The next animal I ſhall mention living in a political ſtate, without the uſe of ſpeech, is an animal not ſo well known as the beaver, and mentioned only by one author, ſo far as I know, but an author of good credit, I mean Cardinal Polignac *, in his *Anti-Lucretius*. And he is the more to be credited in this particular, that the inſtance, as he confeſſes himſelf, makes againſt his ſyſtem, of the brutes being no more than machines, according to the philoſophy of Des Cartes, which he follows. This animal, he ſays, he himſelf ſaw ſomewhere in the *Ukraine*, upon the banks of a river he calls *Danaſtris*. It is named, he ſays, by the Poles *Baubacis*; and is like a fox in appearance; but ſubſiſts upon herbage. They live aſſociated in caverns under ground; and the buſineſs they carry on is, foraging in the fields, and making

* This author flouriſhed in the end of the laſt century, and the beginning of this, and was a man of great eminence, not only for learning, but for political abilities; and was accordingly much employed in public buſineſs, ſuch as embaſſies, and negociations of peace. In this poem, though he refutes *Lucretius*, he has imitated his ſtyle and manner very exactly; and I think the diction of it is the beſt modern philoſophic Latin extant.

magazines for their proviſion during the winter. About their fields and paſture they quarrel and go to war; and their battles, as our author has deſcribed them, are very orderly and regular; for they have a kind of military diſcipline, and are formed into corps under certain leaders. But the moſt extraordinary circumſtance he tells of them, is their manner of treating their priſoners of war, of whom they make ſlaves, obliging them to work in the buſineſs of foraging, and laying up proviſions againſt winter. And, particularly, he ſays, that they make thoſe ſlaves lie down upon their back, and hold up their legs, and then they pack the hay upon them, which their legs keep together, and having thus loaded theſe *living carts*, as our author calls them, they drag them along by the tail *. I think it can hardly be doubted, that this animal, with ſo much ſagacity, if it had likewiſe the organs of ſpeech, would in proceſs of time invent a language.

The laſt animal of the brute kind I ſhall mention living in this way, without lan-

* *Anti-Lucretius, lib.* 6. *verſ.* 175.

guage, is an animal they call a *ſea-cat*, of which we have an account, that I think may be depended upon, from the Ruſſian academicians in the deſcription they have publiſhed of *Kamſchatka*, which they went to viſit by orders and at the expence of the Czarina. This animal is amphibious, and, ſo far as appears, does not form ſtates or republics like the beaver, but lives in families, which are ſometimes very numerous, amounting to a hundred and twenty, old and young: For the male keeps a ſeraglio, ſometimes of fifty females, of whom he is as jealous as the Grand Signior is of his. They keep up a very ſtrict family-diſcipline, puniſhing their wives ſeverely for neglecting any point of duty, ſuch as the care of the offspring, for which they ſhew great love and tenderneſs; and the conſequence of this diſcipline is, on the part of the wives, very great ſubmiſſion to their lord and maſter, whom they endeavour to pacify, when they have offended him, by every mark of humiliation and contrition; all which he receives with the utmoſt ſtatelineſs and ſullenneſs. They have almoſt all the paſſions and ſentiments of men. They are jealous, proud, quarrelſome, and revengeful; and when

they have ſuffered any injury, and cannot reſent it, they, like Achilles in Homer *, ſhed tears. They are as brave as any Spartan, and will rather die upon the ſpot than yield, or quit their ground; and their military diſcipline in this point is ſo ſevere, that, if any of them runs away, or even is ſuſpected of doing ſo, the reſt fall upon him as fiercely as they would upon any enemy, and deſtroy him †. Yet this animal has no uſe of ſpeech, nor, ſo far as I know, organs proper for it: But it appears, that, without it, he can practice the moſt difficult of human arts, that of government, and of government over females, in which moſt men have failed, and even the legiſlator of Sparta, who, as we are told, wanted to regulate the lives of the women as he had done thoſe of the men, but found it ſo difficult a work that he was obliged to give it over.

I think it is unneceſſary to give more examples of this kind from the brute creation, ſince it appears to me that our own ſpecies furniſhes ſufficient for my purpoſe.

* *Iliad. lib.* 1. *v.* 357.

† *Natur. Hiſt. of Kamſchatka, p.* 125. It is tranſlated from the Ruſſian language by James Grieve, and printed at *Gloucester*, 1764.

And, firſt, there are the Orang Outangs, who, as I have ſhewn, are proved to be of our ſpecies by marks of humanity that I think are inconteſtable; or, ſhould any one, after all that has been ſaid, ſtill doubt of the Orang Outangs being men, what can be ſaid to the example of dumb perſons among us, whom no body will deny to be capable of living together in ſociety, and carrying on jointly any ſort of buſineſs; ſince we ſee both men and women with that defect, not only capable of acting in concert with others, but of governing and directing.

And, thus I hope I have removed Monſ. Rouſſeau's chief difficulty concerning the invention of language, by ſhewing that ſociety, and even the political life, which he judges rightly to be neceſſary for the invention of language, may exiſt without language.

I have enlarged the more upon this point, that it tends greatly to confirm what I have endeavoured to prove in the firſt book, That language is not natural to man. For, if man can ſubſiſt, not only ſingle and ſolitary, but in ſociety, without the uſe of language, it is evident that language is not neceſſary for his exiſtence. Now, nature has not beſtowed upon any animal other faculties than

thoſe that are neceſſary for the ſubſiſtence of the individual, or the continuation of the kind. And, if we are to ſuppoſe that man could not, in any country or climate of the earth, ſubſiſt, even in ſmall numbers, upon the natural produce of the ground, but ſtood in need of certain arts, as we ſee is the caſe of the bee and the ſpider, they muſt be arts, ſuch as tilling the ground, fiſhing, or hunting, which contribute immediately and directly to the ſuſtenance of man. Now, language is none of theſe; for, with it, men may ſtarve, and, without it, they may, as we have ſeen, be ſupported. So that, if we hold language to be either natural or revealed to man, we muſt alſo maintain, and with much better reaſon, that the more neceſſary arts of life, ſuch as thoſe juſt now mentioned, are likewiſe either natural or revealed.

CHAP. XIII.

Objection, That the Law of Nature, as it is treated of by modern Writers, ſuppoſes men to have been originally rational and political.—Anſwer to that Objection.

BEFORE I conclude this book, I will endeavour to anſwer ſome objections that may be made to my ſyſtem, beginning with one which will readily occur to thoſe who have ſtudied the law of nature and nations; a ſtudy that was very faſhionable ſome years ago, but I think has become leſs ſo of late. It will be ſaid, That, according to my ſyſtem of human nature, it is impoſſible to ſuppoſe, that man, in his natural ſtate, can be ſubject to any law or obligation, not being conſcious of any rule of action, nor having any ideas of right or wrong, becauſe he has no ideas of any kind. If this be ſo, they will ſay, what are we to think of thoſe volumes that have been written within theſe laſt hundred years upon the law of nature, all ſuppoſing that man is by nature, and in his original ſtate, ratio-

nal and ſocial; and, therefore, ſubject to certain laws and rules, which are laid down in thoſe authors at great length?

My ſhort anſwer to this is, That thoſe gentlemen plainly beg the queſtion, and ſuppoſe, what I think is clearly diſproved, by fact and experience, as well as argument, that man, in his original ſtate, is rational and political. I think I have ſhewn, that his natural ſtate is no other than that of the mere animal; and, therefore, he can be only ſubject to that common law of the animal nature, well known by the name of *inſtinct*; a law much ſuperior to all laws of human inſtitution, or founded upon human inſtitutions, and proceeding from a much higher original.

As to the authorities quoted againſt me, the firſt who reduced this law of nature into a ſyſtem, and gave it the form of a ſcience, was Hugo Grotius, a name well known in the learned world. This he did in his excellent treatiſe *De jure belli ac pacis*, written with a moſt commendable intention, to try if he could eſtabliſh any rule of right and wrong * among perſons who may be ſaid in-

* That ſuch was the intention of his work, is evident from what Grotius himſelf ſays in his προλεγομενα, § 3.

deed to live in a ſtate of nature, ſuch as Hobbes has deſcribed, *of war of every one againſt every one*, and a ſtate infinitely more terrible than the ſtate which he ſuppoſes: For *there* only ſingle ſavages fight,

———*Glandem et cubilia propter;*

but *here* leviathans † indeed of enormous ſize take the field, having not hundreds of hands only, like the giants of the poets, but hundreds of thouſands, armed with deadly weapons, with which they wage moſt cruel war. To ſpeak without a figure, the deſtruction of modern war is ſo prodigious, by the great armies brought into the field, and which are likewiſe kept up in time of peace, and, by the extraordinary waſte of men, by fatigue, diſeaſes, and unwholeſome proviſions, more than by the ſword, while the internal policy of Europe at preſent is ſo little fitted to ſup-

' Videbam per Chriſtianum orbem, vel barbaris gentibus ' pudendam, bellandi licentiam: Levibus aut nullis de ' cauſis ad arma procurri; quibus ſemel ſumptis, nullam ' jam divini, nullam humani juris reverentiam, plane ' quaſi uno edicto ad omnia ſcelera emiſſo furore.'

† This is the name which Hobbes gives to the great corporations or political bodies we call ſtates.

ply ſuch deſtruction, that, unleſs the princes either fall upon ſome other way of deciding their quarrels, or provide better for the multiplication of people, Europe is in the utmoſt hazard of being again depopulated, as it once was under the Romans, but without the reſource which it then had of barbarous nations to repeople it.—But to return to our ſubject.

In this work, Grotius underſtands by the *law of nature*, a law which is common to the rational and ſocial nature *, in contradiſtinction to what is called *civil law*, which is peculiar to each ſociety or nation of men. It is the ſame with the law of nations, at leaſt in the common uſe of authors; tho' Grotius has made the diſtinction betwixt them, making the law of nature to ariſe immediately from the dictates of reaſon, and to be of univerſal obligation, without any conſent or compact; whereas the law of nations is founded upon the conſent of nations †. But he confeſſes, that the terms are uſed promiſcuouſly, even by the beſt authors ‡. Now,

* *Lib.* 1. *cap.* 1. § 10. & 12.

† *Proleg.* § 6.

‡ Cicero, in a paſſage quoted by *Grotius*, *lib.* 1. *cap.* 1. § 12. ſays, *In re conſenſio omnium gentium jus naturæ putanda eſt.*

I acknowledge that Grotius, as well as Puffendorf, Barbeyrac, and many other later writers upon the ſubject of the law of nature and nations, does ſuppoſe, that men are by nature rational, and were always aſſociated in ſtates or communities of one kind or another. But they only *ſuppoſe* it, without proving it; and it is plain they have taken it for granted, without ſo much as making a queſtion of it.

But, if their authority were more deciſive upon this point, I appeal from them to a much greater authority; I mean that of thoſe philoſophers who formed the ſyſtem of the Roman law: For it is well known to thoſe who have ſtudied that law, that they were really philoſophers, who, being at the ſame time great men in the ſtate, and intruſted with the adminiſtration of public juſtice, did apply the principles of philoſophy, and the method of ſcience by definition and diviſion, to the laws of private property among their countrymen; a thing that never had been before done in any nation. In laying the foundation of their ſyſtem, they have begun with the law of nature, as that from which every other law is ultimately derived. But what is the law of nature, according to them?

Is it the law of the rational and ſocial nature only, as the modern writers upon the law of nature and nations have defined it? No: It is a law common to the whole animal race. 'Jus naturae,' ſay they, 'eſt quod 'natura omnia animalia docuit. Nam jus 'iſtud non humani generis proprium; ſed 'omnium animalium quae in terra, quae in 'mari naſcuntur, avium quoque commune. 'Hinc deſcendit maris atque foeminae con-'junctio, quam nos matrimonium appella-'mus; hinc liberorum procreatio, hinc edu-'catio. Videmus etenim caetera quoque a-'nimalia, feras etiam, iſtius juris peritiâ 'cenſeri.'

Thus it appears, that, as we, in giving an account of the origin of language, have gone back to that original ſtate of our nature, when we were no more than mere animals; ſo thoſe philoſophers, in giving the origin of law, have likewiſe gone back to the ſame original ſtate, when we were ſubjected only to that univerſal law which governs the whole animal nature, and is antecedent to reaſon, ſociety, and all human inſtitutions. This is their law of nature. As to the law of nations, they define it thus: 'Jus genti-

'um eſt quo gentes humanae utuntur; quod 'a naturali recedere facile intelligere licet: 'Quia illud omnibus animalibus, hoc ſolis 'hominibus inter ſe commune ſit; veluti er- 'ga Deum religio, ut parentibus et patriae 'pareamus.—Ex hoc jure gentium intro- 'ducta bella, diſcretae gentes, regna condi- 'ta, dominia diſtincta, agris termini poſiti, 'aedificia collata, commercium, emptiones, 'venditiones, locationes, conductiones, obli- 'gationes, inſtitutae; exceptis quibuſdam 'quae a jure civili introductae ſunt *."

Thus thoſe founders of the Roman law have diſtinguiſhed accurately what other writers have confounded, the law of nature and the law of nations; making the law of nature to be that which is common to the whole animal race, directing every thing that is neceſſary for the preſervation of the race; and they mention particularly the conjunction of the male and female, the procreation and education of the offspring; and law here is uſed in the ſame ſenſe as when we ſpeak of the laws of nature which govern the inanimate parts of the creation. The law of nations, on the other hand, is

* *Pandect. lib.* 1. *tit.*

not the conſtitution of nature, but ariſes from human reaſon, and the inſtitution of ſociety and political life; and it is called the law of *nations*, becauſe it is the general law of the rational and ſocial nature, and conſequently of nations, which, being independent of one another, can be ſubject to no other law, at leaſt of human inſtitution. From this law, theſe authors derive religion, duty to our parents and our country, diſtinction of property, commerce, and, in ſhort, all the rights that men enjoy, either in war or in peace. For our authors do not, like Mr Hobbes, make war the natural ſtate of man, but derive it from this law of nations: *Ex hoc jure gentium introducta bella, &c.* And this is the law of the rational nature, different from the laws of inanimate nature above mentioned, and alſo from the laws of animal nature, in ſo far as the word *law*, when we ſpeak of the law of nations, is uſed, in the proper and ordinary ſignification, to denote a rule of action preſcribed to a free agent, of which he is conſcious, and with which he voluntarily complies.

The rules of this law of nations, as it ought to be called, I hold to be binding up-

on all rational men living in ſociety, princes as well as ſubjects, and to be founded in nature; not indeed the original nature of man, but that ſecondary and acquired nature of a rational and political creature, which he himſelf has formed; and, therefore, this law is not improperly called, by ſome later writers, *a ſecondary law of nature*, in contradiſtinction to the *primary law* mentioned by the Roman lawyers. I hold, alſo, that the obligation of this law is as much founded upon compact, as the obligation of any private citizen to ſubmit to the laws of the particular ſociety of which he is a member. For every man, by living in ſociety, and enjoying the protection and other benefits of it, is underſtood to have agreed to ſubmit to the general laws of the rational and ſocial nature, without the obſervation of which, ſociety could not ſubſiſt; and, therefore, if a man will not ſubmit to this law, he muſt fairly do as the Hottentot did, of whom Monſ. Rouſſeau tells the ſtory, that is, throw off his cloaths, and run to the woods and fields, renouncing all the benefits of ſociety, as well as ſubjection to its laws.

CHAP. XIII.

Anſwer to the Objection, That this Syſtem of human Nature degrades it.

I Know, ſome pious and well diſpoſed perſons have taken offence at my ſyſtem, becauſe it ſeems to deprive human nature of its chief prerogative, the rational ſoul, which I make to be of our own acquiſition, and the fruit of induſtry, like any art or ſcience, not the gift of nature; and they will further ſay, that, by conſequence, I take from man thoſe virtues which they ſuppoſe to be natural to him, ſuch as piety, juſtice, humanity, and benevolence, which are as often loſt by cuſtom and education as acquired.

To this objection, I anſwer, by the diſtinction with which I ſet out in this work, betwixt the power of *becoming* any thing, and the actually *being* that thing; or, as I chuſe to expreſs it in two words, *capacity* and *energy*. This diſtinction, I ſay, runs

through all nature, in which there is a perpetual progreſs from the one ſtate to the other, and that nothing *is* at firſt what it afterwards *becomes* *. Now, if any one ſays, that the human mind is an exception from this law of nature, he muſt prove it. But this he will never be able to do; on the contrary, he muſt confeſs, that, in one ſtate of our exiſtence, at leaſt, it takes place; for, in our infancy, where is the rational ſoul, but in the poſſibility or capacity of acquiring it? That reaſon thus latent in mere power, will ſooner exert itſelf by means of culture, education, and commerce, with creatures already rational, cannot be denied. The only queſtion, therefore, is how long, without ſuch helps, it will lie dormant? I ſay, a very long time; and that, at laſt, it will be only excited by the neceſſities of human life, and the ſocial intercourſe required to ſupply thoſe neceſſities. On the other hand, it is ſaid, that it will come immediately when the body is arrived to its maturity. But the pious objector ſhould well conſider, whether he does

* This difference betwixt *to be* and *to become*, is well known in the Greek philoſophy, and is expreſſed by the two verbs ἐστι and γινεται.

not, in this way, eſtabliſh a greater connection betwixt body and mind than he is willing to allow; for, if the mind not only uſes the body as its tool or inſtrument, but acquires, from the growth of the body, talents and faculties of operating, which it confeſſedly had not before, it muſt, I doubt, be of a nature congenial to the body, and have ſomething more than mere ſympathy with the body. Whereas my ſyſtem makes a perfect ſeparation betwixt the two, deriving all the mind's improvements from itſelf, by the means of experience and obſervation; ſo that the body is no more than its organ, by which it gets information of what paſſes without, and thereby collects materials whereupon to exert its natural powers; and, therefore, it would be as ridiculous to aſcribe the mind's improvements to the body, as it would be to aſcribe an artiſt's improvements to his tools, or the materials upon which he operates.

As to virtue, it is evident it cannot be without reaſon. For virtue is the perfection of reaſon in action, as ſcience is the perfection of it in ſpeculation. It is true indeed, that, in the brutes, we obſerve what may be called diſpoſitions towards certain virtues

and vices: Thus the lion is ſaid to be brave and generous, the fox cunning, the ape malicious, the dog envious; and as Prometheus, when he made man, is ſaid to have taken ſomething from every other animal †, we may obſerve this variety in the natural characters of men, unformed by cuſtom or education, ſuch as we ſee them in children; and we cannot doubt, but there is the ſame diverſity among men altogether in the natural ſtate. But there cannot be virtue, properly ſo called, till after man is become a rational and political animal; then he ſhews true courage, very different from the ferocity of the brute or ſavage, generoſity, magnanimous contempt of danger and of death; friendſhip and love of the country, with all the other virtues which ſo much exalt human nature, but which we can as little expect to find in the mere ſavage as in the brute, or infant of our ſpecies.

† Fertur Prometheus addere principi
Limo coactus particulam undique
Deſectam.

Hor. lib. 1. ode. 16.

It was in this way, that antient wiſdom choſe to expreſs the wonderful variety of our ſpecies.

This is my ſyſtem of human nature in the ſtate wherein we ſee it at preſent, (for I ſpeak of no other, nor of any ſupernatural aſſiſtance that may be given to man); and if any perſon can invent another that does more credit to our nature, and ſeparates, more perfectly, the nobler part of us from body and mere matter, I ſhall freely give up mine, and acknowledge I did wrong in publiſhing it, whatever my private ſentiments might have been: For I hold it to be of the utmoſt conſequence, for the good of ſociety, to keep up our ideas of the dignity of our nature, even if they were no more than a deluſion.

CHAP. XIV.

Another objection anſwered, ariſing from the Inſtitution of Marriage.—That Inſtitution not Natural, but Political or Religious.—This proved both from Theory and Fact.

IT may alſo be objected, That, in this account which I have given of the origin of ſociety, I have ſaid nothing at all of the firſt of all human ſocieties, namely the family-ſociety: That this ſociety muſt have been formed as ſoon as the human race began, for the ſake of the education of the offspring: That it is a ſort of civil ſociety in itſelf, in ſo far as there is a king and governor in it, viz. the huſband and father, and there muſt be ſome buſineſs jointly carried on for the ſupport of the family: That out of this little patriarchal ſtate have grown, as I admit, greater communities, which in proceſs of time have formed nations and civil ſocieties, in the ſtricteſt propriety of the word;

and that, in this way, language and the other arts of life would be very ſoon invented. So that, it is not neceſſary to take ſuch a round as I have done, and to make the invention of them ſo operoſe a buſineſs.

Before I come to make a particular anſwer to this objection, I muſt enter a caveat againſt the manner of reaſoning, which I obſerve is very common on this ſubject. In the firſt place, an hypotheſis is laid down, that man was from the beginning, in all ages and nations of the world, the ſame, or nearly the ſame, with what he is at preſent in Europe, or other civilized parts of the world. For it is a maxim, conſtantly in the mouth of ſuch reaſoners, that human nature is and always has been the ſame. And, ſecondly, ſuppoſing this maxim to be undeniable, they argue, from the manners and cuſtoms of ſuch men as we are; and, becauſe ſuch and ſuch inſtitutions are practiſed by civilized nations, they conclude, that they muſt have been always in uſe, and as old as the human race.

If this be good reaſoning, there is no room for any farther inquiry in this matter: But we muſt at once conclude, that men were from the beginning rational and poli-

tical, as we ſee them now in Europe, and that they had language, and I think, for the ſame reaſon, every other neceſſary art of life, as ſoon as they were men. But I think I am at liberty to ſet hypotheſis againſt hypotheſis, and to ſuppoſe, that man, ſo far from continuing the ſame creature, has varied more than any other being that we know in nature. And, tho' his nature may in ſome ſenſe be ſaid to be the ſame, as he has ſtill the ſame natural capabilities that he had from the beginning; yet this nature is, by its original conſtitution, ſuſceptible of greater change than the nature of any other animal known. And that, in fact, it has undergone the greateſt changes, is proved, I ſay, firſt from the general hiſtory of mankind, by which it appears, that there has been a gradual progreſs in arts and manners among the ſeveral nations of the earth, whoſe hiſtory has been handed down to us; and, ſecondly, from particular relations of the cuſtoms and manners of barbarous nations, both antient and modern. If this be ſo, then my ſyſtem is founded not upon hypotheſis, but on the hiſtory of man, collected from facts, in the ſame manner as we collect the hiſtory of any other animal: Whereas, the contrary ſyſ-

tem is mere hypotheſis, not only unſupported by facts, but repugnant to them.

Having premiſed this obſervation, I will now proceed to examine the argument urged againſt me, from the inſtitution of marriage and domeſtic ſociety; and will endeavour to ſhow, that it is not from nature any more than civil ſociety. And firſt, I will conſider the thing *a priori*, and from theory merely; and then I will conſider, how the facts agree with the ſyſtem which I ſhall thence form.

And, in the firſt place, if it could be proved, that it was abſolutely neceſſary for the continuation of the human ſpecies, that the men and women ſhould pair as the birds do, and continue together in ſociety till the offſpring be reared, and able to provide for themſelves; I ſhould think it would follow, of neceſſary conſequence, that it muſt in fact have been ſo, when the human race firſt began; but the contrary of this ſuppoſition I hold to be the truth. For I think it is certain, that, in the natural ſtate, the care of the mother alone is ſufficient to rear the offſpring in our ſpecies, and to provide for them, till they be able to provide for themſelves, which is a much ſhorter time among

ſavages, than among civiliſed men. For, as the ſavages have more health and vigor than we have, ſo alſo their children are ſtronger, and abler to do for themſelves at the age of three, than our children are at the age of five or ſix. Mr Byron, in the account that he has given us of his ſhipwreck with Captain Cheap, tells us, that he has ſeen children of three years old upon the coaſt of Patagonia, go upon hands and feet, upon the rocks and breakers, and plunge into the water, without any hurt or dread of thoſe ſtormy ſeas. Other travellers tell us, that the children of the Orang Outangs cling to their mother with their hands and knees, and in that way they are carried off by the mother, from the purſuit of thoſe who want to catch them *. And it is a fact that cannot be de-

* See Purchas's pilgrims quoted by Mr Buffon, vol. 14. of his natural hiſtory, *pag.* 48. *et* 49. &c. alſo what I have related above, of the child of a woman by an Orang Outang, which, immediately after it was born, began to run about.

Mr Buffon, in his natural hiſtory, has told us, that there is no animal ſo weak as man when he is new born; that he has not then even the power of motion, ſo as to be able to ſearch for and find out the breaſts of his mother, but muſt be applied to the breaſt, and have the nipple put into his mouth; *vol.* 4. *p.* 37. *et* 97. And other modern authors, as well as Mr Buffon, have made a ſubject of declamation of this

nied, that the negroe women are not hindered, by the care of their infant children, from doing any ſort of work, and ſo providing both for themſelves and their offſpring. The fact therefore being directly the contrary of what is ſuppoſed, the contrary concluſion ſeems to follow, that, as it is not neceſſary for the propagation or education of the ſpecies, that man ſhould be monoga-

miſerable helpleſs ſtate of man, compared with that of other animals, when he firſt comes into the world. But all this proceeds upon a ſuppoſition, which I hold to be abſolutely falſe, that the natural ſtate of man is the ſame, or little different from that in which we now ſee him, in the ſeveral countries of Europe. The ſame authors, proceeding upon the ſame miſtake, will no doubt ſuppoſe that man, in his natural ſtate and native country, I mean the warm climates, is no bigger, ſtronger, healthier, or longer lived, than he is at preſent. And accordingly, Buffon has ſaid, that we are more ſubject to infirmities than other animals, *ibid. p.* 49. Whereas the truth is, that there is no animal ſtronger for his ſize, healthier, or, I believe, longer lived, than man in his natural ſtate is; nor ſhould ſuch accuſations be brought againſt nature, as if ſhe had erred ſo much in her chief workmanſhip here below, as to make man more liable to diſeaſes than any other animal: The fact no doubt is true, that man is at preſent more liable to diſeaſe, than any other animal; but the blame ought to be laid where it truly lies, upon bad manners and inſtitutions, and the many ingenious arts we have invented for the deſtruction of our bodies, not upon God and nature.

mous, as Linnaeus has expreſſed it, therefore he is not ſo by nature; but in the natural ſtate propagates as horſes, ſheep, oxen, and almoſt all the quadrupeds do. For nature does nothing in vain; and it is a rule which I believe ſuffers no exception, that nothing is natural to an animal which is not neceſſary, either for the preſervation of the individual, or the continuation of the ſpecies.

It appears, therefore, that, ſo far as we can judge by the nature of the animal, marriage is a political and religious inſtitution, not from nature. And this is confirmed by what we obſerve in thoſe ſpecieſes which come the neareſt to the human, ſuch as monkeys, apes, and baboons, who propagate in the ſame manner as the quadrupeds above mentioned *.

* This is not affirmed by any traveller, or any natural philoſopher, ſo far as I know. But their ſilence upon this ſubject is to me proof ſufficient, joined with the reaſon above mentioned, that they do not pair; for, if they had propagated in a manner ſo uncommon among all animals, except fowls, it is hardly poſſible, but that they would have taken notice of it.

Linnaeus, I obſerve, mentions an animal he calls *Lemur*, and which he ſeems to ſuppoſe to be of the monkey race, though, by the epithet he gives him of *Tardigradus*, one ſhould hardly believe it. This animal, he ſays, is mo-

Thus we are to judge from theory or ſpeculation merely, and the next thing we are to conſider is, whether there be any evidence that can be depended upon, to prove, that, in fact, men did, at any time, propagate in that manner. And, I ſay, if any circumſtance at all is allowed to be capable of proof concerning the original ſtate of man, this muſt be allowed to be proved, that men, in that ſtate, did propagate after the manner of the beaſts I have mentioned. For, in this, all the teſtimonies both of antient and modern authors, who ſpeak of the moſt ſavage nations, agree: And it appears to be the diſtinguiſhing characteriſtic of the greateſt barbarity, that is, of the ſtate neareſt to the original ſtate of human nature. It is a fact, atteſted as well as any fact of ſuch antiquity can be, that Cecrops firſt inſtituted marriage among the Athenians, having found them, upon his arrival from Egypt, in that ſtate of extreme barbarity, copulating

nogamous. If this be true, and, if the animal be really of the monkey kind, then it is an exception to the rule; but which confirms it, with reſpect to other monkies, particularly thoſe called *ſimiae* by Linnaeus, which certainly come the neareſt to our kind.

promiſcuouſly like beaſts, ſo that no man knew who his father was *.

It appears, therefore, that the firſt ſtep towards civility, and the firſt act of government and legiſlation among men, was the inſtitution of marriage; and, as it is of human inſtitution, ſo, like other human inſtitutions, it has aſſumed different forms, in different nations. For, in ſome nations, one man is allowed only to have one wife; in others, a man is allowed more, but the number is defined. In others, he is allowed, without diſtinction, as many as he can procure or keep. When the cohabitation of men and women takes this laſt form, it can hardly be called *marriage*, which, in propriety of language, is only *pairing*, ſuch as is natural to certain races; but it may be called a *property* in women, ſecured to men by law, as well as the property of other things; ſo that, even at this day, marriage may be ſaid not to take place in a great part of the earth.

At what particular period of the progreſſion of ſociety the inſtitution of marriage began, is not eaſy to determine. It muſt, I think, have been different in different na-

* See more of this matter, book. 3. cap. 12.

tions; and, like other ſteps of that progreſſion, muſt have depended upon various accidents, and circumſtances, and particularly, the intercourſe of the nation with other more civilized nations; by which, the progreſs of human things is advanced, and made to proceed faſter than it would do in its natural courſe. But thus much in general I think we may venture to affirm, firſt, that, in the natural ſtate, men did not pair, nor in any wiſe appropriate females to themſelves, for the reaſon above mentioned, viz. that as that ſtate can only exiſt in a country and climate, where men may ſubſiſt upon the natural fruits of the earth, and as in ſuch countries, it is evident, that the female alone can rear the offspring, it would be a ſuperfluity in nature to charge the male with any care of the offspring. Nor would the want of the appropriation of females produce ſo much diſorder in this natural ſtate, nor even in the firſt ſtages of ſociety, as is commonly imagined. For, it is a certain fact, that among the barbarous nations, even ſuch of them as, like the Indians of North America, have made conſiderable progreſs in civil life, the paſſion for women is not

ſtrong, and, in the natural ſtate, we cannot ſuppoſe that there would be any intercourſe betwixt the ſexes, except what was neceſſary for the procreation of the ſpecies. For nature gives to no animal an appetite or inclination that has not a tendency, either to the preſervation of the individual, or the continuation of the ſpecies. Whatever is beyond that, and has for its object mere pleaſure, is from vitious habit, and the effect of an unnatural manner of living †.

2*do*, Even in the firſt ſtages of ſociety, men ſtill continuing to live upon the natural fruits of the earth, I think, it is highly probable, there would be no marriages, becauſe there would be no neceſſity for them; and I am perſuaded, that, if we knew more than we do of the œconomy of the Orang Ou-

† It may be objected, that the monkies, baboons, and even the Orang Outangs, are very lewd, and ready to fall upon our females at all times, when they can find them. But this does not prove that they behave in the ſame manner to their own females, unleſs we ſuppoſe that theſe, like our females, are always diſpoſed to admit the male; a ſuppoſition which I think is extremely improbable. For we do not obſerve that the females of any ſpecies of animals, living in the natural ſtate, have any inclination for the male, except at certain times, when it can ſerve the purpoſe of the propagation of the ſpecies, not of pleaſure merely. Nor have the males, in ſuch a ſtate, any deſire for the females, except at thoſe times.

tangs, or of thoſe ſavages I mentioned, upon the banks of the river Gaboon in Africa, it would be found, that there is no ſuch thing among them, any more than among monkies.

3*tio*, Further, it does not appear to me neceſſary that at firſt, when men began to ſubſiſt upon invented arts, ſuch as hunting and fiſhing, they ſhould immediately couple. For, tho' the mother, in that ſtate of life, might not be able ſingly to provide for the offspring, till they were able to provide for themſelves, we muſt ſuppoſe, that, when men agree together to carry on any common buſineſs, what is acquired in that way will be common to the whole ſociety; and that, conſequently, not only the mother, but her offspring, would get a ſhare of it. We have not therefore any reaſon to doubt of the fact above mentioned, concerning the Athenians living without marriage in Attica, till Cecrops came among them, where certainly they could not ſubſiſt without arts.

But, 4*to*, As ſociety advanced, when the paſſions of men became ſtronger and more ungovernable, and after other things were appropriated, it became neceſſary to make a

property alſo of women. For then men,

——Venerem incertam rapientes more ferarum,
HORAT.

grew very troubleſome and dangerous to one another; and beſides, in ſuch circumſtances, the offspring would be beſt reared by the joint care of both parents. If the ſociety was then upon a footing of equality, as it happened in Attica, and among the tribes in North America, it would be a proper marriage of one man to one woman: But, if a ſuperiority was aſſumed by ſome of the ſociety over the reſt, as appears to have happened in many countries of the eaſt, polygamy would be eſtabliſhed.

After a herd of ſavages was thus divided into families, the patriarchal government began, every family becoming a little ſtate, and carrying on by itſelf the buſineſs of ſubſiſtence, only uniting with other families of the herd, upon extraordinary occaſions; ſuch as that of war offenſive or defenſive. In this way, the Cyclops lived, as they are deſcribed by Homer †, and many of the inhabitants of Chili live at this day ‡. Theſe

† *Odyſſ. lib.* 9. *v.* 112. *et ſeq.*
‡ See Frefier's voyage to the South-Sea.

families increaſing, became in proceſs of time little tribes, and ſuch I imagine was the origin of the φυλαι, that is, little ſocieties or corporations, into which the people of Attica were originally divided. And theſe families or tribes, either joining with others, as we have ſeen happened in North America, or keeping by themſelves, and increaſing very much, have grown into great nations, which was the caſe of the family of Abraham.

Having thus endeavoured to anſwer the objections that may be made to my ſyſtem, I will here conclude this ſecond book, in which I have endeavoured to ſhew, that though ſociety be abſolutely neceſſary for the invention of language, yet language is not neceſſary for the conſtitution of ſociety; and having thus prepared matters for the invention, I proceed, in the next book, to ſhew in what manner it probably was invented, and of what nature the firſt languages were.

BOOK III.

CHAP. I.

What was required for the Invention of Language, beſides the Conſtitution of Society.

IN the preceding book, we have placed man in a ſtate of ſociety and of political union, carrying on, of common conſent, and with joint labour, ſome work neceſſary for defence, or the ſupport of life. In this ſituation, and this only, could language have been invented. But more was neceſſary for the invention of ſo difficult an art. And, in the *firſt* place, The proper organs of pronunciation were indiſpenſably required. Theſe are given to ſome few animals beſides man; but I believe they are in none ſo perfect.

2*dly*, They muſt have been a very long time in this political ſtate; ſo long at leaſt as to have improved into an art the buſineſs they were carrying on: By which I do not mean to require, that they ſhould have been regular artiſts, knowing the cauſes and principles of their art, and operating by certain rules which they could demonſtrate from thoſe principles; but my meaning is, that they muſt have improved their rude practice at firſt into a better, by obſervation and experience; and, in that way, have fixed a certain method of doing the thing, which, when it is done by degrees, and from obſervation and experience, may not improperly be called *art*. For, as I have already obſerved, one of the great differences betwixt inſtinct and art is, that what is done by inſtinct, is performed as well at firſt as at laſt; whereas art is neceſſarily formed by gradual improvements. In ſhort, before man could have invented a language, he muſt have been perhaps for many ages in the ſame ſtate the beaver is in, as I have deſcribed it above. For the beaver, of all the animals we know, that are not, like the Orang Outangs, of our ſpecies, comes the

neareſt to us in ſagacity, and, as I have already obſerved, appears to have ſome other principle of action beſides inſtinct; of which there is a proof that I have not hitherto mentioned, ariſing from the form of their huts or cabins; which, as Monſ. Buffon tells us, is not always the ſame; ſo that it would appear they have different opinions of things as well as we: Whereas inſtinct performs every thing in the ſame invariable manner. I am therefore perſuaded, that the beaver did, from experience and obſervation, the old teaching the young, learn the architecture of his dike and his hut, as we have learned our architecture and other arts.

3dly; Another thing abſolutely required, as preparatory to the invention of a language, is, that men ſhould previouſly have formed ideas to be expreſſed by language: For it is impoſſible to conceive a language of proper names only without general terms. Now, ideas muſt have been formed by an animal, ſuch as man, carrying on any common buſineſs, and operating, not by inſtinct, but learning by obſervation and experience. For ſuch an animal muſt have an idea of

the end for which he acts, and of the means of attaining that end. For, as I have ſhewn, every animal that does not act from inſtinct, like the bee or the ſpider, muſt act with knowledge of the end. Beſides, man, in the ſtate in which I have deſcribed him, muſt neceſſarily have had ideas, however imperfect, of trees and animals, and other objects, with which he was converſant: And he muſt have had more perfect ideas of the inſtruments of art which he uſed; eſpecially if they were of his own invention.

Laſtly, It appears to me to have required an extraordinary degree of ſagacity, to invent ſo artificial a thing as ſpeech; nor do I think that there is any animal other than man yet diſcovered, unleſs perhaps it be the beaver, that has ſagacity enough to have invented it: For, however eaſy the invention may ſeem, now that it is diſcovered, and ſo commonly practiſed; yet it was truly far from being obvious, but, on the contrary, very far removed from common apprehenſion. For, in the *firſt* place, Man, as we have ſeen, does not naturally form articulate ſounds; but, on the contrary, it is a great work of art, difficult to be learned even after it is invented, but infinitely more dif-

ficult to be invented. 2*dly*, Suppoſe this firſt difficulty got over, and articulate ſounds invented, it was by no means an obvious thought, to apply them to the expreſſion of ideas, with the greater part of which they have no connection, at leaſt that is eaſily diſcovered; for, though there be words expreſſing certain ſounds, which are imitations of thoſe ſounds, it is certain that by far the greater part of words are not natural ſigns of ideas. And how is it poſſible they ſhould? For what natural connection is there betwixt the idea of a tree, *ex. gr.* the earth, the ſun, the moon, and any articulation of ſound? And indeed the making ideas in this way *audible*, appears to me to have been full as great a refinement of art, as the ſo-much-boaſted diſcovery of making ſounds *viſible*, I mean the invention of alphabetical characters; and ſo much the more wonderful, that it was invented in a much earlier age of mankind And it muſt appear ſtill more wonderful, when we conſider, that it is not the only method of communication, and therefore not abſolutely neceſſary for the purpoſes of political life; but that there are other methods, as we have ſeen, which in great part anſwer thoſe pur-

poſes, and with which accordingly other animals that live in the political ſtate, as well as man, remained ſatisfied. Of theſe other methods we are now to ſpeak more particularly, in order to try whether from theſe we cannot trace the progreſs to the invention of language.

CHAP. II.

Of the ſeveral Methods of Communication in Uſe among Men before the Invention of Language.

THERE are four ways by which men could communicate together, before the invention of ſpeech: *Firſt*, *Inarticulate cries*, expreſſive of ſentiments and paſſions; 2*dly*, *Geſtures*, and the expreſſion of the countenance; 3*dly*, *Imitative ſounds*, by which audible things may be expreſſed; and, *laſtly*, *Painting*, by which viſible objects may be repreſented. The two firſt are common to us with the brutes; the two laſt are peculiar to man; and all the four may be ſaid to be *natural*

ſigns of what they expreſs; for even the connection betwixt inarticulate cries and the things expreſſed by them, though it appear to be the moſt remote, is ſo eſtabliſhed in nature, that it is underſtood by every animal, without any previous compact or agreement.

Of thoſe inarticulate cries there is a very great variety; and it is really ſurpriſing how many different paſſions, ſuch as love, joy, anger, grief, fear, the brutes expreſs by them; and I am perſuaded, the nearer the œconomy of any of them comes to ours, the greater variety will be found in their cries, becauſe they have the more to expreſs by them. The Ruſſian academicians ſay, that the *ſea-cat* above mentioned, which has ſo much of human nature in it, can low like a cow, growl like a bear, and chirp like a cricket, which laſt is a ſong of triumph after he has vanquiſhed his enemy *; and if the beaver living in a ſocial ſtate were accurately obſerved, there would be found a great variety of this kind of language among them. When the brutes are tamed, and become familiar with us, they acquire voices and tones that they had not before. Thus, Por-

* *Hiſtory of Kamſchatka, p.* 128.

phyry the philoſopher tells us, that his partridge learned to converſe with him in a voice very different from what ſhe uſed in communication with her fellows *; and ſome of them, as it is well known, may be taught to articulate. But it is evident, that all this variety of cries, though it were much greater than it really is, could not anſwer the purpoſes of human life, when it came to be enlarged and extended to many different arts and occupations, which the growing wants of men rendered neceſſary.

The *next* kind of expreſſion I mentioned was that of *looks* and *geſtures*, which is alſo very ſtrong and various among the brutes, and it is a language which they perfectly well underſtand. The only uſe they make of it is to expreſs their paſſions and feelings; but we know certainly, from the example of dumb perſons among us, that it may be uſed to expreſs ideas: And we learn from hiſtory, that they may be expreſſed in this language with the utmoſt accuracy and preciſion; for in Rome there was an art of this kind formed, called the *pantomime* art, which was brought to the utmoſt perfection about the time of Auguſtus Cæ-

* See before, *book* 1. *p.* 148.

ſar *. An artiſt of this kind could expreſs by ſigns, not only every ſentiment and paſſion of the human mind, but every idea, with as great accuracy, and as great variety too, as any orator could do by words; and it is a noted ſtory of Roſcius the player in Rome, that he uſed to contend with Cicero, which of them could expreſs the ſame thing, he by looks and geſtures, or Cicero by words, with the greateſt variety and copiouſneſs.

There can be no doubt that, before the invention of language, this kind of expreſſion, as well as the other by inarticulate cries, would be much uſed. That ſavage nation which Diodorus Siculus, in the paſſage I quoted before, calls the *Inſenſibles*, converſed in no other way; and the ſavages in North America do at this day ſupply the defects of their language by a great deal of action and geſticulation. But it is impoſſible to ſuppoſe, that this art of ſpeaking to the eyes could be brought to ſuch perfection among ſavages as it was by Roſcius at Rome, or by the pantomimes in after times, who *danced* whole theatrical pieces, according to the expreſſion in antient language; that is, repreſented them by geſtures and movements

* *See Lucian,* Περὶ ὀρχήσεως.

performed to muſic, without one word being uttered *. Even in Greece, where all the other arts of pleaſure and entertainment were cultivated, and brought to the higheſt degree of perfection, the art of the pantomime was not carried ſo far as in Rome. For, although their players did no doubt expreſs a great deal by their action, particularly in the movements of their choruſes, and their monodies, there was no ſuch thing, as far as I can learn, practiſed among them as dancing a whole piece, or even acting a ſingle monody, without ſpeaking; at leaſt not in the better days of Greece. For in the later times it is not improbable that they may have adopted the pantomimes of the Ro-

* Before the Romans had pantomimes, their actors, ſuch as Roſcius, played certain parts in dumb ſhow. Thoſe parts were the monodies, or *cantica*, as the Latins call them, which were ſoliloquies ſpoken *in recitativo* to muſic. In ſuch parts of the play the actor among the Romans only geſticulated, and expreſſed the ſenſe by his action, that is, *danced*, as they called it, while another *ſung*, or pronounced the words to muſic: So that it was only in the *diverbium* or dialogue that the Roman actor uſed his voice. How this ſtrange cuſtom of dividing the acting and ſpeaking, ſuch as never was practiſed in any other nation, as far as I know, came to be introduced among the Romans, Livy has informed us, *lib.* 7. *c.* 2.

mans; and Lucian appears to me to ſpeak of it as an entertainment among the Greeks in his time *.

* I have often wondered, that Horace, in his epiſtle to Auguſtus, where he flatters that prince ſo much as to compare the arts of Rome in his time to the arts of Greece, in theſe lines,

Venimus ad ſummum fortunæ; pingimus, atque
Pſallimus, et luctamur Achivis doctius unctis,

does not mention this *pantomime* art, which I believe was the only one in which the Romans of thoſe days excelled the Greeks. And this perhaps was one of the reaſons which made the people of Rome ſo paſſionately fond of it: For as to painting and muſic, mentioned by Horace, I cannot believe that there was the leaſt degree of compariſon betwixt thoſe arts, as practiſed in Rome, and as practiſed in Greece; and particularly, as to painting, the Romans, as far as I know, never produced either one good painter or ſtatuary. And, with reſpect to wreſtling, as the firſt *palæſtra* in Rome was, as I remember, no earlier than the days of Auguſtus Cæſar, I think it is hardly poſſible that the Romans ſhould all of a ſudden have become ſuch expert wreſtlers. As therefore he flatters Auguſtus ſo much at the expence of truth, I can aſſign no reaſon why he omitted this pantomime art, in which he might have truly ſaid the Romans excelled the Greeks, except that he did not eſteem it, either as a uſeful art, which it certainly is not among perſons who can underſtand one another by language, or of any natural grace and beauty. And indeed it appears from what Lucian ſays in his dialogue upon dancing, that the men of gravity and correct taſte condemned this mimical repreſentation, as fit only for the lower ſort of people.

So far from being brought to this ſtate of perfection among ſavages in the firſt ſtage of humanity, I am perſuaded it would not go the length of ſerving the purpoſes of common intercourſe, where there was any number of wants to be ſupplied by mutual aſſiſtance: Or, if we could make ſo wild a ſuppoſition, as that it would be carried to the ſame degree of perfection as in the polite age of Auguſtus, ſtill it is in ſundry reſpects far inferior to the method of communication by ſpeech; for, firſt, it ſpeaks only to the eyes, ſo that it can be of no uſe but in the light; and then we cannot converſe in that way at ſuch a diſtance as by words, which alone makes it a very improper vehicle of our thoughts in carrying on any buſineſs without doors, ſuch as fiſhing and hunting, which are the chief occupations of ſavages.

The *third* method of communication I mentioned was by *imitative or mimic ſounds*, which, I doubt not, was practiſed before the invention of language, as it has been ſince; but the expreſſion of it could not go any great length; no farther than to denote ſounds, or objects which were diſtinguiſhed

by particular ſounds, ſuch as beaſts and birds of different kinds.

As to the *laſt* method I mentioned, *painting*, or delineating any object by drawing the figure of it, it may have been uſed before the invention of language; but it could go no farther than to communicate the notion of viſible objects; and, beſides, it is of ſlow and difficult practice, and not at all of ſo ready uſe as language.

Of theſe four ways of communication, it is plain, that only two have any connection with language, viz. inarticulate cries and imitative ſounds, which are both modifications of the human voice, as well as language, and could alone lead the way to the invention of language. And we are now to inquire, whether, from one or other, or both of theſe, that invention can be traced.

CHAP. III.

Whether there might not be a Language of Muſic ſingly, without any Articulation.

BUT there is a third modification of the human voice which deſerves to be conſidered before we proceed further, and that is muſical modulation. There is an ingenious man, an acquaintance of mine*, that has beſtowed a good deal of thought upon this ſubject, who conjectures, that the firſt language among men was *muſic*, and that, before our ideas were expreſſed by articulate ſounds, they were communicated by tones, varied according to different degrees of gravity or acuteneſs: For he conſiders language to be of ſo difficult invention, that it could

* The man I mean is Dr Blacklock of Edinburgh; a perſon of great genius, and wonderful learning, if we conſider that with him knowledge is ſhut out at one of its principal entrances; for he has been blind ſince his infancy. He is well known by ſeveral ingenious works that he has publiſhed, both in proſe and verſe.

not have been attained to at once, without trying every more obvious variation of the voice, ſuch as that of muſical tones, which we firſt learned by imitation of the birds; and, having in that way become muſicians, it was natural enough to think of applying the variation of tones to a purpoſe of utility as well as pleaſure, namely, the communication of ideas. And he adds, that, when it was found neceſſary to enlarge the expreſſion of language by the addition of articulation, the tones were ſtill preſerved.

The thought, I own, is very ingenious; and thus far it is ſupported by fact, that I believe all the antient and original languages, without exception, have a great deal of accent or tone in them †; and the want of ſuch tones is but a modern corruption of language, of which I ſhall have occaſion to ſpeak afterwards. Thus the Greek has its

† I uſe *accent* in the antient ſenſe of the word, to ſignify a muſical modulation of the voice, by which it is made higher or lower with reſpect to gravity or acuteneſs. This is the meaning of the Latin word *accentus*, and of the Greek τονος. Whereas the word in Engliſh has a ſenſe very different, denoting only the elevation of the voice upon one ſyllable of a word above the reſt, without any change as to gravity or acuteneſs.

tones, by which one ſyllable of a word is raiſed above another in reſpect of acuteneſs: and the interval has been marked by their grammarians, as I ſhall explain more particularly in the ſequel of this work. In the Latin language likewiſe there are the ſame tones, though with ſome variations with reſpect to the ſyllables upon which they are placed. The Chineſe, which, though an imperfect language, is certainly a very antient one, and, for that very reaſon, it is likely, ſo imperfect, is full of tones, inſomuch that ſometimes the ſame monoſyllable ſignifies nine or ten different things, according to its different accents. The indians too in North America, as I have been informed by gentlemen who have ſtudied their languages, have tones by which they make the ſame word ſignify different things, of which they have given me inſtances; and particularly one of thoſe nations, the Hurons, according to the account given us of their language by Gabriel Sagard, an author whom I ſhall have occaſion frequently to mention in the ſequel †, ſupply the defects of their language,

† This *Gabriel Sagard* was a religious of the order of *St Francis*, who was ſent on a miſſion to the country of the Hurons in the year 1626, and publiſhed his travels at

particularly the want of tenſes, perſons, numbers, and genders, by accents only *. Theſe facts convince me, that the variation of the human voice by tones or muſical modulation was, if not prior to language, at leaſt coeval with it; for which reaſon it is taken into the

Paris in the year 1631, under the title of *Le Grand voyage du pays des Hurons, &c.*; to which he has added a dictionary of the Huron language, with a preface to it, containing many particulars concerning that language. The book is extremely rare, and, before publiſhing the firſt edition of this volume, I could only hear of two copies of it; one in the *Muſeum* at London, and another in the French King's library in Paris. This laſt I had the uſe of by the favour of *M. Caperonier*, the keeper of that library, who was ſo obliging as to allow me the privilege of taking it out of the library, and keeping it for ſome weeks by me. It was the peruſal of this dictionary and the account of the language prefixed to it, that firſt made me think of this work; in which, if the public finds any thing entertaining or inſtructing, they owe it to the politeneſs and obliging diſpoſition of Monſ. Caperonier, to whom I take this opportunity of returning my ſincere thanks. Since the firſt edition was publiſhed, I have had the uſe of it from Dr Robertſon of Edinburgh, who has got it, among other curious and rare books that he has collected in relation to America, in order to make the work that he is about to publiſh upon that country as inſtructive and entertaining as his other works.

* The Jeſuit Sebaſtian Raſles, who was miſſionary in Canada in 1723, ſays the ſame thing of the Huron language; for he tells us, that the ſame word has different ſignifications according as it is differently accented; *Lettres Ædifiantes, vol. 23. p. 213.*

compoſition, and made a part of all original languages; and yet I dare not venture to affirm, that there ever was a language of ſinging merely, before there was a language of ſpeaking. And I ſhould rather incline to think that there was not. One thing at leaſt is certain, that ſuch a language would be altogether inſufficient for the purpoſes even of ſavage life: for the muſic of ſavages is of very ſmall compaſs; that of the Hurons, according to a ſpecimen of it given by the author I juſt now mentioned, does not riſe above a fourth, the ordinary compaſs of the muſic of the birds, from which, in all probability, it was copied †. And we know, that the antient Greek lyre had no note above a fourth, nor any interval ſo ſmall as a ſemitone, which is alſo the caſe of the Huron muſic. There muſt there-

† The tunes which the birds ſing are very high ſet, that is, the fundamental note is very high, compared with any of the notes of our muſic. The loweſt note of a linnet, for example, is much higher than any note we can ſound upon any inſtrument. But then they riſe by very ſmall intervals, ſo ſmall as to be hardly diſtinguiſhable by our ears, very ſeldom higher than a *fourth*, commonly not above a *third*, as I am informed by the gentleman above mentioned, Dr Blacklock, who has the fineſt ear perhaps of any man living, and has obſerved with particular attention the muſic of the birds.

fore have been in ſuch a muſic ſo little variety of expreſſion, that I can hardly believe it ever was uſed as a language.

Quitting, therefore, this hypotheſis, we muſt try if we can deduce language from inarticulate cries, or imitative ſounds.

CHAP. IV.

That Language aroſe from natural inarticulate Cries.

WITH reſpect to mimic ſounds, I am of the ſame opinion as with reſpect to muſical notes, that there never was a language entirely, or even for the greater part, compoſed of them; and I am confirmed in this opinion by obſerving, that there are no ſuch words, at leaſt as far as I have obſerved, in the barbarous languages; ſo that I am diſpoſed to believe, that the framing words with an analogy to the ſound of the things expreſſed by them,—*verba ex ſono facta*,—as the grammarians call them, belongs rather to languages of art, than to the firſt languages ſpoken by rude and barbarous na-

tions. It is therefore inarticulate cries only that muſt have given riſe to language; and, as every thing of art muſt be founded on nature, it appears at firſt ſight very probable, that language ſhould be nothing but an improvement or refinement upon the natural cries of the animal, more eſpecially as it is evident, that language does no more than enlarge the expreſſion of thoſe natural cries: For ſuch cries are uſed by all animals who have any uſe of voice to expreſs their wants; and the fact is, that all the barbarous nations have cries, expreſſing different things, ſuch as, cries of joy, grief, terror, ſurpriſe, and the like. The *war-cry* of the Indians of North-America is well known to thoſe that have been among them; and they have a cry, when they return from any expedition, by which they ſignify, before they enter their village, what ſucceſs they have had. The ſavage girl, whom I have ſo often mentioned, entertained me with ſeveral ſuch cries belonging to her nation; and ſhe told me, that, while ſhe was travelling through the woods with the negro girl who had eſcaped the ſhipwreck with her, as they did not underſtand one another's language, they converſed together by ſigns and cries; and in

that way they underſtood each other ſo well, that they made a ſhift to live upon what they could catch hunting together. Theſe two methods of communication were undoubtedly the firſt uſed by men; and we have but to ſuppoſe a great number of our ſpecies in the ſame ſituation as thoſe two girls, carrying on ſome common buſineſs, and converſing together by ſigns and cries, and we have men juſt in a ſtate proper for the invention of language. For, if we ſuppoſe their numbers to increaſe, their wants would increaſe alſo; and then thoſe two methods of communication would become too confined for that larger ſphere of life which their wants would make neceſſary. What then was to be done? I have ſhewn already that ſigns alone would not do, unleſs they were to acquire the pantomime art, which cannot be ſuppoſed. The only thing then that remained to be done was, to give a greater variety to the natural cries. The queſtion then is, What ſort of variation was firſt made upon them! And here I agree with Dr Blacklock, that, as the natural progreſs is from what is eaſy to what is more difficult, they would firſt make the more obvious and ſimple variation by tones, before they diſtin-

guiſhed them by the more difficult operation of articulation. And I am the more inclined to be of this opinion, that I obſerve a difference of tone in the natural cries of other animals, of which I have no doubt but a ſkilful muſician could mark the intervals: So that, though I cannot agree with the Doctor, that there ever was a ſinging language, entirely compoſed of different muſical notes; yet I think it is highly probable, that the natural cries were varied by tones, before they were diſtinguiſhed by articulation.

But this variety, as I have obſerved, could not go far, and, therefore, another method of variation was to be thought of. And, being advanced ſo far, it was natural that ſo ſagacious an animal as man ſhould go on farther, and come at laſt to the only other variation remaining, namely, articulation: For that there was ſuch a progreſs in the formation of language, as in all other things belonging to man, I cannot doubt; and I am perſuaded, that the moſt barbarous and imperfect language extant is at the diſtance of many ſtages from its firſt origin.

The firſt cries that would be articulated were probably thoſe by which animals call upon one another, and exhort or command

one another to do certain things: For ſuch cries are neceſſary in carrying on any work by joint conſent, ſuch as we muſt ſuppoſe men to be engaged in before a language could be invented. And the firſt articulation muſt have been very ſimple, the voice being broken, and diſtinguiſhed only by a few vowels and conſonants, but not ſo exceedingly diverſified by various articulation as we ſee it is in the languages of art: For if in any thing the progreſs of man was ſlow, and from ſmall beginnings, it muſt have been ſo in the invention of this moſt difficult art.

Further, as all natural cries, even though modulated by muſic, are from the throat and *larynx*, or knot of the throat, with little or no operation of the organs of the mouth; it it is natural to ſuppoſe, that the firſt languages were for the greater part ſpoken from the throat, and that what conſonants were uſed to vary the cries were moſtly guttural; and that the organs of the mouth would at firſt be but very little employed.

And this theory of mine is confirmed by what the above mentioned author, Gabriel Sagard, tells us of the language of the Hurons, of which I ſhall make much uſe in this

inquiry, becauſe it is more imperfect, and, therefore, nearer to the origin of the art, than any language, ſo far as I know, that has hitherto been diſcovered. He ſays, that they have a form of addreſs or ſalutation, which is no more than a vocal cry aſperated, that is, pronounced from the throat. It is *Ho*, *ho*, *ho* *; and, in calling upon one another, they uſe the ſounds *Hi*, *ha*, and *halouet*, which are very frequent in their ſongs, when they call upon one another to be merry; and it may be obſerved, that we have in our language words of much the ſame ſignification, ſuch as, *Hollow*, *halloo*, *huzza*, *whurra*, and ſuch like, which are no other but cries, calling or exhorting a little articulated.

This author alſo informs us, that they have but very few conſonants in their language; and, particularly, they want the labial conſonants, ſuch as *b*, *p*, *f*; the conſonants *v*, *m*, *n*; and even the vowel *u*, becauſe it is pronounced by the lips; and, with reſpect to the conſonants of this kind, La Hontan ſays the ſame thing, and he adds, what indeed is a neceſſary conſequence, that they never ſhut

* Sagard ſays, it is a ſalutation of joy, expreſſing the pleaſure they have to ſee you; p. 106. of his travels into the country of the Hurons. And it no doubt was originally an articulate cry, expreſſing that paſſion.

their lips in ſpeaking *; which is the caſe of every animal that utters only natural cries. Neither have they the lingual conſonants *g* and *r*; and accordingly, our author tells us that they could not pronounce his name, *Gabriel*, otherwiſe than *Aieuiel*: For it ſeems that, though they have not the pure vocal ſound *u*, which I take to be that of the French *u*, they have ſuch as come near to what is expreſſed by the diphthongs *eu* and *ou*, which laſt is alſo uſed in ſetting down their words. In ſhort, the conſonants they moſtly uſe are gutturals, ſuch as *k*, *q*, *x*; and they make very much uſe of the aſpirate *h*, which is alſo pronounced from the throat; and La Hontan ſays, that almoſt all their words have a very ſtrong aſpiration †. And their language, upon the whole, ſeems to be little better than animal cries from the throat, of different tones, a little broken and divided by ſome guttural conſonants. And with this account of the Houron language agrees perfectly the account which the wild girl I have ſo often mentioned, *Mademoiſelle le Blanc*, as they call her in France, gave me

* *La Hontan's Travels* in North America, vol. II. p. 219.
† Ibid. p. 220.

of the language of her country; and which, for any thing I know, may be a dialect of the Huron language: For ſhe ſaid it was all ſpoken in the throat; and that there was no uſe of the tongue or lips in it; and, to convince me that it was ſo, ſhe pronounced ſome words that ſhe remembered of it.

From this account of the origin of language it appears, that the firſt ſounds articulated were the natural cries of men, by which they ſignified their wants and deſires to one another, ſuch as calling one another for certain purpoſes, and other ſuch things as were moſt neceſſary for carrying on any joint work. Then in proceſs of time other cries would be articulated, to ſignify that ſuch and ſuch actions had been performed, or were performing, or that ſuch and ſuch events had happened relative to the common buſineſs. Then names would be invented of ſuch objects as they were converſant with. This increaſe of words would make more articulation neceſſary. And thus the language would grow by degrees; and, as it grew, it would be more and more broken and articulated by conſonants; but ſtill the words would retain a great deal of their o-

riginal nature of animal cries. And thus things would go on, words ſtill multiplying, till at laſt the language became too cumberſome for uſe; and then art was obliged to interpoſe, and form a language according to rule and method; of which we ſhall endeavour in the ſequel to give ſome account; but in the mean time we muſt explain more particularly the nature of thoſe firſt-invented languages, which the neceſſities of human life produced without any art at all.

CHAP. V.

General Obſervations upon the firſt Languages.—Diviſion of them into the Matter and the Form.—The Nature of Articulation, and the Diviſion of elemental Sounds into Vowels and Conſonants.

BEFORE I enter into particulars upon this ſubject, I will make one or two general obſervations. And, *firſt*, In ſuch languages as I have deſcribed, being nothing but the natural and inſtinctive cries of

the animal, a little varied and diſtinguiſhed by articulation, no art or regularity can be expected. And accordingly Sagard tells us, that the Huron language is ſo very imperfect and irregular, that it is impoſſible to form a grammar of it; that is, to reduce it to any rule. 2*dly*, A conſequence of this is, that thoſe languages can have no ſtandard, or any thing fixed and eſtabliſhed in the uſe of them, ſuch as we ſee in formed languages; but muſt be differently ſpoken by the different families or tribes of which the nation is compoſed, and muſt alſo be conſtantly changing and fluctuating: For it is art only that gives any conſtancy or ſtability to practice; which, till the art be invented, muſt be various and capricious. Thus, till the *orders* were invented, and *architecture* formed into an art, every man built his houſe according to his own fancy; and even in nations where there appears to have been ſome taſte of building eſtabliſhed, as among the Goths, it is remarked in their buildings, that there are no proportions conſtantly obſerved, nor any uniformity in the ornaments, no capital of one pillar being exactly like another, nor any two doors or windows or-

namented in the ſame manner. In muſic likewiſe, till it became an art, there could be no regularity or uniformity in the compoſitions, as may be ſeen in the muſic of barbarous nations. In painting alſo, and ſculpture, till they were formed into arts, and the ſtandard of beauty fixed, as it was among the antients, the taſte of beauty would be as various as the untaught fancies and apprehenſions of the ſeveral artiſts, as we may perceive with reſpect to the painters and ſculptors among us who have not formed their taſte upon the antient models. And in this very matter of language, Gabriel Sagard informs us, that hardly any one village of the Hurons ſpeaks the ſame language as another; nay, two families of the ſame village do not ſpeak exactly the ſame language. And he further tells us, that it is changing every day, and is already ſo much changed, that the antient Huron language is almoſt quite different from the preſent *.

But, in order to conſider more particularly the nature of thoſe primitive languages, we muſt return to the diviſion of language, with which we ſet out, into its *matter* and

* Sagard's preface to his Dictionary, *pag.* 9.

form. And I will begin with the *matter* of the languages of ſavages; that is, the ſounds of which they are compoſed: With reſpect to which I have anticipated a good deal of what I had to ſay, in the account I have given of the origin of them; and I hope what I have further to ſay, will naturally follow from that account. But firſt I muſt ſay ſomething in general of articulation; for it is that which diſtinguiſhes language from any other ſound.

The breath which comes from the lungs, and paſſes through the wind-pipe, is the ſubject-matter both of ſinging and ſpeaking. In ſinging, this breath is modified by different contractions and dilatations of the wind-pipe, and of the *rimula*, or little hole of the *larynx*, which produce the ſeveral degrees of gravity and acuteneſs of ſound, ſuch as form the different notes of muſic. After the breath is paſſed the larynx, it receives a further modification by the ſeveral poſitions and actions of the ſeveral organs of the mouth, ſuch as the tongue, the teeth, the palate, and the lips; to which alſo we may add the throat and the noſe, which have a great ſhare in the pronunciation of ſome

languages, and more or leſs in the pronunciation of all. The alteration made by thoſe organs upon the voice is what we call *articulation*; a metaphor taken from the *articuli* or joints of the limb of any animal; for as theſe divide the limb into parts, ſo articulation breaks and divides the continuity of the voice, which otherwiſe would go on in the ſame tenor, without any diſtinguiſhable parts. And it is in this way that all the variety of ſounds is produced, by which men have been enabled to expreſs their conceptions, and to mark every one of them by a different ſound. To analyſe all this variety of ſound into its ſeveral elemental parts, was a work of art, of very great difficulty, which certainly was not performed by the firſt ſavages who ſpoke, nor for many ages after. What therefore we have to ſay upon this ſubject, we ſhall refer till we come to ſpeak of languages of art. It will only be neceſſary, at preſent, in order to underſtand what follows, to obſerve, that ſome of theſe elemental ſounds are produced by the poſition or configuration of the ſeveral organs, with little or no action of them, while others are produced by the action of thoſe organs *. The

* This is obſerved by Dionyſius the Halicarnaſſian in his moſt elegant and accurate treatiſe of compoſition,

firſt kind are called *vowels*, making a ſound by themſelves: For they are nothing elſe but the blowing of the breath with a tremulous concuſſion of the wind-pipe and larynx, (which is abſolutely neceſſary in order to produce any ſound), through the organs of the mouth in a certain poſition. The other claſs is called *conſonants*; a name importing, that they cannot be ſounded by themſelves without the aid of the vowels. For it is evident, that the action of the organs alone can produce no vocal ſound without the expiration of the breath, tho' it may make ſome kind of beating or chopping, which is the ſound of that ſpecies of conſonants they call *liquids*. The conſonants therefore are nothing elſe but vocal ſounds, or vowels modified and diverſified by the ſeveral actions of the different organs of pronunciation.

And here we may obſerve how complex and difficult a buſineſs articulation is, tho' by conſtant practice it appears ſo eaſy. For, let us take the ſimpleſt ſyllable, which is

§. 14. where, in deſcribing the pronunciation of the vowels, he has theſe words: Ἐκφωνεῖται δὲ ταυτα ἁπλᾶ, τῆς ἀρτηρίας ξυνιχούσης τὸ πνεῦμα, καὶ τοῦ Στόματος ἁπλῶς σχηματισθέντος, τῆς τε γλώσσης οὐδὲν περαίνουσης, ἀλλ' ἠρεμούσης.

that made by a ſingle conſonant and vowel, ſuch as *ba*, or *ab*, there muſt be complicated together in the ſame enunciation, the blowing of the breath, with the tremulous concuſſion above mentioned; the poſition of the organs neceſſary to produce the vocal ſound; and the action of the organs, by which the conſonant is ſounded: Which action muſt be either before or after the poſition of the organs forming the vowel, according as the conſonant is ſounded firſt or laſt in the ſyllable. But the buſineſs becomes much more difficult, when we compound vowels, making what we call *diphthongs*, and when we throw into the ſame ſyllable two or three conſonants, as in the Engliſh word *ſtrength*. In ſhort, the more accurately and minutely we conſider language, the greater the difficulty of the invention appears, and indeed the abſolute impoſſibility of it, unleſs we ſuppoſe it to be invented by very ſlow degrees, from very ſmall beginnings, and in a very long courſe of time.

CHAP. VI.

How Men came to invent Articulation.— That it was by Imitation of other Animals, on whom Nature had beſtowed that Gift.

THIS buſineſs of articulation, which, by many, is thought natural to man, will, I am perſuaded, appear to a philoſopher, who conſiders the matter attentively, ſo exceedingly artificial, that he will think it the greateſt difficulty, in my ſyſtem, to account how men ſhould ever have thought of making ſuch an uſe of the organs of the mouth: And it is proper to try to remove this difficulty before I proceed farther upon the ſubject of the ſound of the firſt languages.

And, in the firſt place, it is evident, that this diſcovery was not made *a priori*, by which, I mean, that man did not proceed, as a philoſopher would do now a-days, to conſider the human voice as capable of variati-

on, by the three ſeveral ways of rhythm, accent or tone, and articulation; and, having diſcovered that the two firſt ways were inſufficient for the purpoſe of language, or, in other words, that there could not be a language of muſic only, they tried next what could be done by articulation. For, though men, by living together in ſociety ſo long as I ſuppoſe they muſt have done, before this method of communication was deviſed, and by inventing other arts, muſt have acquired a great deal of ſagacity, and formed notions of many things; yet it is impoſſible to ſuppoſe them ſo much philoſophers as to have proceeded in this way to the diſcovery of any thing, a way, by which very few of the greateſt diſcoveries have been made, even among civilized nations. For, the fact truly is, that the greateſt inventions in all ages of the world, have, like that of gun-powder, been fallen upon by chance *; nor has art or ſcience done more than improve ſuch lucky

* See Lucretius, lib. 5. where he has given a very ingenious account of the various accidents, by which the uſe of fire and the ſeveral arts thereon dependent have been diſcovered.

accidents. But by what accident could this ſo wonderful invention be diſcovered?

It is an obſervation of Ariſtotle, that it is by imitation we firſt learn. Accordingly, our children learn to ſpeak in that way; and it is the want of imitation that makes the teaching of deaf perſons to articulate ſo extremely difficult. Now, the firſt men who began to ſpeak, were, in this reſpect, in the ſame condition as our deaf perſons, in ſo far, at leaſt, that they could hear no ſpeaking. The more, therefore, we conſider the matter, the more it ſeems difficult to account how men ſhould at firſt have attempted to articulate. If this difficulty were got over, the reſt would be eaſy. For, according to the common ſaying, *facile eſt inventis addere*; and it cannot be doubted, that ſo ſagacious an animal as man would, if he once had begun to articulate, bring it, in proceſs of time, to the perfection in which we now ſee it.

It muſt have been, I think, one of two ways that men could have been led to try this artificial method of communication; either the neceſſities of life muſt have obliged them to vary and enlarge by every poſſible way their inarticulate cries; ſo that, at laſt, they fell up-

on the method of articulation, for which the organs of the human mouth have a particular aptitude, greater, I believe, than thoſe of any other animal; or, what I think more probable, they were led to the diſcovery by the imitation of the articulate ſounds of other animals. For there are other animals, and particularly birds, which utter ſounds that may be called truly articulate. Such is the cuckoo among us; and which accordingly has its name from that ſound. Such is the cochatoo, a Weſt India bird, which likewiſe has its name from its cry. Such alſo is the crow, which utters a ſound that may be called articulate, and from thence has its name in Greek, Latin, and Engliſh *. Now, man being the moſt imitative of all animals, not only by action and geſture, but by voice, in which, as I have ſhewn, the great difference betwixt his imitative powers, and thoſe of

* The Greek name is κορακ, perhaps the more antient, was κρωξ, which is nearer the ſound of the animal. The Latin is *corvus*, formed from the Greek by throwing in the digamma, after the uſual manner, and changing the termination into *us*, more uſed in Latin. But there is an older Latin word for this animal, which comes ſtill nearer the cry of it, namely, *Gracus* from whence comes *Graculus*, the Latin name for a jackdaw; and which Quinctilian tells us, is formed from the ſound of the animal.

the monkey conſiſts, it is natural to ſuppoſe that he would attempt to imitate thoſe articulate cries of other animals; and having organs fit for the purpoſe, would, at laſt, by repeated trials, ſucceed.

And that it ſo happened in fact, will appear very probable, if we conſider that another art, namely muſic, which is only a different way of uſing the voice, was invented by imitating the birds likewiſe. This we are told by Lucretius * the poet and philoſopher, whoſe teſtimony is the more to be regarded, that he was, as I have already obſerved, of that ſect of philoſophers of antiquity which dealt moſt in facts and obſervations, and, particularly, had ſtudied very diligently the hiſtory of man, and of the origin and progreſs of arts; and, what he ſays of the invention of muſic, was confirmed to me by what I learned from the wild girl that I ſaw in France, who told me, that the only muſic of the people of her country, was the imitation of the ſinging of birds †. Now,

* *At liquidas avium voces imitarier ore*
Ante fuit multo, quam lævia carmina cantu
Concelebrare homines poſſent, aureſque juvare.
Lib. 5. v. 1378.

† See introduction to Book 2.

if it be true, as I ſuppoſe, that the firſt variation of inarticulate cries was by difference of tone, and that in this way the method of communication by ſound was firſt enlarged, and ſomething like a muſical language formed by the imitation of birds, there is nothing more natural than to ſuppoſe, and indeed I think it muſt neceſſarily have happened, that they would carry the imitation of the birds ſtill farther; and, finding that the difference of muſical tones did not vary and diſtinguiſh their natural cries ſufficiently for the purpoſe of ſpeech, they added to thoſe cries the further variety of articulation, which they would likewiſe learn from the birds; and ſo would form language: And, having once begun to diſtinguiſh their ſounds of communication in this way, they would ſoon diſcover, that inanimate, as well as animated things, made noiſes that approached to articulation; and, by obſerving and imitating ſuch ſounds, they would enlarge their ſtock of words. Of this kind, are many words in different languages, and, particularly in Engliſh; ſuch as *crack*, *ſnap*, *craſh*, *murmur*, *gurgle*, a..d the like.

From this account of the matter, it ſhould ſeem, that the primitive languages would be

full of words imitating the ſounds of animated, or inanimate things. If the fact were ſo, we might have expected to hear of it from travellers, and others who have given us an account of barbarous languages. But, among the many authors of that kind that I have peruſed, I have only found one French author, who ſays, that the Carribbee language, if I am not miſtaken, abounds with words of that kind. And, when I looked into the vocabularies and dictionaries of thoſe languages, I could find none that ſeem to be formed in that way; not even the names of ſuch animals as utter cries that might be expreſſed by articulation. For example, in the Huron language, according to Gabriel Sagard's vocabulary of it, the name of a duck is *taron;* of a partridge, *acoiſſan;* of a raven, *oraquan;* of a dog, *gagnenon*; of a grey fox, *andaſatey*; a black fox, *hahyūha*: Nor, in the words denoting actions accompanied with ſound, can I perceive any relation to that ſound.

The caſe then appears to be as I have ſuppoſed it, That men, at firſt, uſed inarticulate cries, to communicate their wants and deſires, and to give the ſignals neceſſary for carrying on the buſineſs in which they were

engaged: That, in order to enlarge the expreſſion of thoſe cries, they varied them, firſt, by different tones, and then by articulation, which they learned from other animals; and, after they had learned to articulate, they did not for that give up the inarticulate cries *, but only varied and diſtinguiſhed them by articulation. And, in this way, I ſhall endeavour to account for a property common to all barbarous languages, I mean the extraordinary length of the words. And thus, the natural and inarticulate cries con-

* A great many of theſe ſtill remain amongſt the North Americans. An officer of his Majeſty's army, who had been in North America, and is a gentleman both of veracity and acurate obſervation, told me, that he was once upon a party with ſome Indians, one of whom called to woman that was at ſome diſtance with a loud voice, but altogether inarticulate; upon which the woman came towards them. This the officer obſerving, aſked the Indian what he meant. He anſwered, that he wanted the woman ſhould go along with them. The gentleman then told him that he did not deſire her company, and thought they would be better without her; upon which the Indian uttered another cry, likewiſe inarticulate, but varied in tone; and, upon that, the woman went back. In this manner, I imagine, men have converſed together, perhaps for ages, before they made uſe of articulation; and, when at laſt they came to uſe it, it was only for the purpoſe of varying the natural cries ſtill further than they had already done by muſical tones.

tinued to be the ground-work, and the principal part of all languages, till men came to form languages of art. Then they abandoned altogether the natural cries, and ſtudying to give to thoſe articulate ſounds, of which alone they made uſe, ſome reſemblance to the nature of the things they expreſſed, they invented ſuch words as thoſe above mentioned, expreſſing things having a ſound that can be imitated by articulation.

Thus, I have endeavoured to ſhew, that men invented articulation, as they did other arts; ſuch as weaving, building, and muſic, which laſt is ſo much a kin to articulation, by imitation of other animals. In this way, I have derived the art from nature, the archetype of all arts, and of every thing that is fine and beautiful among men; and I have laid the foundation of it upon that predominant quality in the human compoſition, by which man is ſo eminently diſtinguiſhed from all other animals, the power of imitation. And the more we conſider the human ſyſtem, the more we ſhall be convinced, that nature has beſtowed upon us this faculty in place of many other talents which ſhe has given to other animals. We ought not,

therefore, fooliſhly, to regret, that we have not from nature thoſe talents; that we do not, for example, weave by nature like a ſpider, or articulate like a cuckoo; but we ought to be thankful, that ſhe has given us what is infinitely more valuable, the faculty of imitating articulation, and every thing elſe in nature that we think worth our imitation, a gift which alone is much more than equal to all that ſhe has beſtowed upon other animals. And it would have been a ſuperfluity in nature, ſuch as we do not find in the reſt of her works, if ſhe had given to us articulation, or any thing elſe, which we have the faculty of acquiring for ourſelves.

Having thus ſolved, as well as I can, what I think is the great difficulty in my ſyſtem, I will now proceed to inquire farther into the nature of the ſounds of barbarous languages *.

* What I have ſaid in this chapter, of the invention of articulation, I owe in a great meaſure to ſome hints that I got from a Scots gentleman of my acquaintance, Sir James Foulis of Colinton, who has thought a great deal upon the ſubject of language, and has taken the trouble of peruſing with great care this firſt volume. He, as well as ſeveral others, was ſo good as to communicate his thoughts to me in writing; and by ſuch correſpondence, I flatter myſelf that this volume has not only been much

CHAP. VII.

Of the Matter of the firſt Languages.—That the Words of them are long, and full of Vowels.—Anſwer to Objection.

AS thoſe who know no more of men than what is to be ſeen in the ſeveral countries of Europe, will form very falſe judgements of human nature; ſo they who have ſtudied only the regular languages of art, without having recourſe to the barbarous languages, which are ſo much nearer the origin of ſpeech, will be apt to form an hypotheſis concerning the ſound of the firſt languages very different from that which I ſhall endeavour to maintain, and for which, I hope, I have already prepared my readers. They will ſuppoſe, that the firſt languages, being very rude and barbarous, as no doubt they were, would be crouded with conſonants,

inlarged, but conſiderably improved; and indeed it is only in this way that a work ſo new and of ſuch curious and extenſive inquiry can be brought to any the leaſt degree of perfection.

and therefore of very harſh ſound, like ſome of the northern languages in Europe, ſuch as the German, and other dialects of the Teutonic. And, 2*dly*, They will ſuppoſe, that the firſt languages conſiſted moſtly of monoſyllables, or very ſhort words; and that it would be only in proceſs of time that they were lengthened, and in conſequence of the improvement of the grammatical art, by which compoſition, derivation, and inflection, were introduced into language. In ſhort, they will be apt to imagine, that what we call now the *roots* of a language, were truly the original words, and at firſt the only words.

Theſe ſuppoſitions may at firſt ſight appear not improbable; but, if my hypotheſis concerning the origin of language be well founded, the direct contrary of both ſuppoſitions is the truth.

And, *firſt*, With reſpect to the number of conſonants in thoſe primitive languages, it is the neceſſary conſequence of my theory, that the words of ſuch languages muſt have been very vocal, being nothing elſe but the natural cries of the animal, a little varied and diſtinguiſhed by articulation. And from what we have ſaid in the preceed-

ing chapter, of the nature of articulation, it is evident, that the conſonants, being formed by the action of the organs of the mouth, and conſequently of much more difficult pronunciation than the vowels, which are ſounded by the ſimple poſition of the organs, it was impoſſible that they could be much uſed at firſt. And ſo difficult is the pronunciation of them, that, at this day, as was before obſerved, there is hardly any language to be found which has the uſe of them all. I know none, except the Greek; which, in this reſpect, as well as in every other, is the moſt perfect language that I am acquainted with *. And thoſe who have not learned early in life to pronounce any conſonant, even ſuch as are of moſt eaſy pronunciation, cannot afterwards, without the greateſt difficulty, be taught to ſound

* By this I mean only to ſay, that the Greek has all the conſonants commonly uſed in the languages of Europe. But I will not venture to affirm, that it has all the conſonants which the human mouth is capable of pronouncing, or even all thoſe that are actually uſed in the barbarous languages. I am well informed, that the inhabitants of *Otaheite*, the new diſcovered iſland in the South Sea, have a ſound in their language betwixt *l* and *r*, which the gentleman who gave me the information could not pronounce, nor I believe any man in Europe.

them; as appears from what La Hontan tells us of a Huron, upon whom he beſtowed four days to no purpoſe, in endeavouring to teach him the pronunciation of the labial conſonants *, ſuch a *b*, *p*, *m*, which are the firſt that our children learn to articulate. But, on the other hand, the five vowels are to be found, I believe, in all languages, though not all ſounded in the ſame way in every language. For even the Huron language, though it have not, as I have obſerved, the pure ſound of the vowel, *u*; yet it has the mixed ſound of it in compoſition with other vowels, ſuch as the diphthongs *eu* and *ou*. And the reaſon is very plain upon my hypotheſis, viz. that the vowels are the ſimpleſt and the eaſieſt modification of the natural cries, being a very ſmall alteration of them, compared with what is made by the conſonants; and the ſound of ſome of them very much reſembles the cries of certain animals.

If there were any doubt in this theory, which I think there is not, it is entirely removed by the fact. For all the barbarous languages that have hitherto been diſcovered, without exception of one, are full of vowels,

* *Vol.* 2. *p.* 219.

with very few conſonants. I have already mentioned the Huron language, the moſt original of any that I know; and to it I may add another language of North America, viz. the Algonkin *, and, in general, all ſuch languages of North America as are dialects of either the Huron or Algonkin. The language of the Galibi, a people of South America †, affords another example: For in tha tlanguage likewiſe the words are very vocal. A third example is furniſhed by the language of the Caribs, inhabiting the Caribbee iſlands, which appears to have a conſiderable affinity with the language laſt mentioned ‡. A fourth, by the language

* See a vocabulary of it in *La Hontan, vol. 2. p.* 202.

† Theſe people live not far from the iſthmus of Darien, in the country of Guiana, in South America; and the French have had a ſettlement among them for about a hundred years, which they have cultivated and improved much ſince the laſt peace. They have been at the pains to learn the language of the natives; and they have publiſhed a dictionary of it, and a kind of grammar, printed at Paris in the year 1763, collected from the obſervations of ſeveral perſons who have been in that country. From that work I have taken what I have ſaid here, and ſhall ſay afterwards, of that language.

‡ There is an account of this language, and of the people who ſpeak it, publiſhed at *Auxerre* in the year 1665, under the tittle of *Dictionaire Caraibe Francois*, by Father

of the Peruvians, as appears from the ſpecimens of it given us by an author before quoted, viz. Garcilaſſo de la Vega's hiſtory of the Incas of Peru. A fifth inſtance is the language of the Eſquimaux in North America, of which Mr Dobbs has given us a vocabulary, in the accounts he has publiſhed of the attempts to diſcover the north-weſt paſſage. And, laſtly, the ſpecimens that have been lately publiſhed of the language of the new-diſcovered iſland of the South ſea, Otaheite, ſhew, that this language likewiſe is extremely vocal *.

Raymond Bretton, miſſionary in the *Carribee* iſlands. He ſays, that the language ſpoken by the *men* in thoſe iſlands is quite different from the language of the *women*. And the tradition is, that theſe iſlands were originally inhabited by a colony from Florida, but were invaded by a tribe of Galibi from South America, who deſtroyed all the males, but preſerved the women, who ſtill ſpeak the language of Florida. For proof of this, our author ſays, that there ſtill ſubſiſts an alliance and friendly intercourſe betwixt the Caribs and Galibi. One *Davies*, who publiſhed an account of the Caribbee iſlands in the reign of Queen Elizabeth, gives the ſame account, if I am not miſtaken, of the origin of that people. In this way our author accounts for the affinity which appears to be betwixt the two languages. His account of that of the Caribs is full and accurate; and I ſhall make a good deal of uſe of it in the ſequel.

* This appears chiefly from the journal of Sidney Parkinſon, Mr Banks's draughts-man, during that voyage,

All thoſe barbarous languages want many conſonants, as well as that of the Hurons; but even of thoſe conſonants which they have, they never ſound two together in the ſame ſyllable. This is obſerved by Garcilaſſo de la Vega; who, after telling us, that the Peruvian language wants the conſonants *f*, *b*, *d*, *f*, *g*, and *x*, adds, that, when two of the other conſonants happen to ſtand together in the ſame word, they divide them in the pronunciation into different ſyllables. Thus they pronounce *roc-ro*, not *ro-cro*. And I have had occaſion to obſerve, that a black that came from a country in Africa near to the ſettlement of Goree, when he was ſo old that he never learned Engliſh well, could not pronounce two mute conſonants together; ſo that, inſtead of *ſtable*, he always ſaid *table*; inſtead of *ſconce*, *conce*, *&c.*

Thus we ſee, the progreſs has been from the uſe of ſingle conſonants in ſyllables to

who ſeems to have given particular attention to the language of the ſeveral nations among whom he was during that voyage. He has given us a vocabulary of the Otaheite language among others, where we have ſuch words as *eaee*, ſignifying the *neck*; *aiai*, the *armpits*; *ɛoo*, the *nipples*; *eoboo*, the *belly*; *meyoooo*, the *nails*, &c.

the uſe of two or more. But is there not a further progreſs in this matter? And was there not a time when no conſonants at all were uſed, and when the only articulation was by vowels? And indeed, when I conſider the great difficulty of pronouncing the conſonants, and of combining them in the ſame enunciation with the vowels, I think it is highly probable, that men did begin to articulate in that manner, and did not at once arrive at the more difficult articulation by conſonants. There are indeed no facts to ſupport this hypotheſis; for we have not yet diſcovered, as far as I know, any language ſo much in the infantine ſtate, as to have no conſonants at all. But, in the language of Otaheite, the new diſcovered iſland, we have ſeveral words of that kind, ſuch as *eaee*, *aiai*, *eoo*, and others above mentioned. And indeed, the moſt of them approach very near to that ſimpleſt kind of articulation. Of the ſame kind are ſome words mentioned by La Hontan * in his vocabulary of the Algonkin language, particularly the word *oueouelim*. I think it probable, that the language of thoſe *Orang Outangs* of Abyſſinia, whom I mentioned before, is all

* Vol. 2. p. 203.

of that kind, consisting of words articulated by vowels only, or at least with very few consonants *.

The next thing to be considered is, the length of the words in the primitive languages. And I say, that, instead of being short, and consisting of monosyllables, they were of great length: And this too is a consequence of those languages being derived from natural cries; for such cries of almost all animals have a certain tract and extension, such as the lowing of an ox, the neighing of a horse, the braying of an ass, the roar of a lion, &c. And that we may not think man an exception from this rule, we need only attend to the dumb persons among us, who utter inarticulate cries, sometimes very loud, but always of a considerable length.

There is another reason why the words of those languages should be long, namely, that having very little articulation by consonants, and none at all at first, according to my supposition, it was necessary that they

* It may be observed, that there are in Greek some words consisting altogether of vowels, such as αω, εαω, ιαω, ιεω, υω; which I consider as vestiges still remaining of the antient savage language, out of which the Greek was formed by men of art.

ſhould have a certain length, in order to diſtinguiſh them from one another, and give them that variety which was neceſſary to expreſs various things; whereas, we that have ſo many conſonants, can, by their means, give a conſiderable variety even to one ſyllable, and a very great variety to two or more *.

And this theory too is ſtrongly ſupported by the fact; for all the barbarous languages have their words of a remarkable length. Some of them indeed have them longer than others, becauſe all of them are not equally

* The want of variety in articulation in the barbarous languages, is the cauſe, not only of the length of the words, but of the frequent repetition, in the ſame word, of both the ſame letters and ſame ſyllables. This is moſt remarkable in the language of the inhabitants of Otaheite, as appears from the vocabulary of it contained in Parkinſon's journal above mentioned, where we have ſuch words as *aiai*, ſignifying the *armpits*; *hiahia*, a *level*, or *flat country*; *bidibidio*, *ſmall red Indian peas*; and many others of the ſame kind. And the name of one of the handſomeſt women in the iſland was *Otheaothea*.

The artificial way, therefore, of varying the ſound of a language is, firſt, by having as many elemental ſounds as may be; and, ſecondly, by combining thoſe elemental ſounds in all the ways poſſible. But the barbarous nations having neither of theſe two methods, can vary their ſounds only by repeating, or otherwiſe lengthening them.

equally near to the original ſource; and ſome of them, as I ſhall have occaſion afterwards to obſerve, begin to be languages of art: But all of them without exception have a much greater length of words than is to be found in the languages of civilized nations. The barbarous languages above mentioned plainly prove this; and particularly the language of the Hurons, the words of which, as they are ſet down in Sagard's dictionary, are of an enormous length. The language of the Caribs, according to the account of it given by the miſſionary above mentioned, exceeds even the Huron in this particular; and Mr Dobbs, in his vocabulary of the Eſquimaux language, has given us the word *won-na-we-uck-tuck-luit*, ſignifying *much*; and a word but a little ſhorter, ſignifying *little*, viz. *mik-ke-u-awk-rook*. And William Smith, in his hiſtory of *New York*, has given us a ſpecimen of the language of the *Iroquois*, or *ſix nations*, as we call them, in North America, p. 40. which the reader, if he pleaſes, may peruſe below *. But the

* "Soŭngwăūnēhă, cāuroŭnkyāwgă, tēhsēētărōan, saūhsŏnĕyōūſtă, ēsă, săwănēyŏu, Okĕttāūhsĕlă, ēhnĕāūwoŭng, nā, cāuroŭnkyāwgă, nūghwōnſhāūgă,

language of a barbarous people that Monſ. la Condamine met with upon the banks of the river Amazons exceeds all others in length of ſound, of which he gives a ſpecimen in their word for the number *three*, viz. *poetazzarorincouroac* *.

nēăttĕwĕhnĕsălāūgă, taūgwăunăutōrŏnoăntōūghſick, tōāntaūgwĕlēēwhĕyōuſtaŭng, chĕnēēyeŭt, chāquătaŭtălēhwhĕyoŭſtāūnnă, toūghsaŭ, taūgwăuſsărēnēh, tāwăutŏttĕnăugăloūghtoūnggă, năsāwnĕ, săchĕaŭtāūgwāſs, coăntēhsălōhāunzāickăw, ēsă, săwăunēyŏu, ēsă, săſhāutztă, ēsă, ſoūngwāſoŭng, chĕnnĕaŭhāūngwā, āuwĕn."

Where it may be obſerved, that, according to the notation of the quantities in this ſpecimen, it appears, that the language of the Iroquois abounds as much in ſhort and long ſyllables as the Greek or Latin. This ſpecimen was furniſhed to Mr Smith by the Reverend Mr Spencer, a miſſionary among the Iroquois, from the Scotch Society for propagating chriſtian knowledge. It is contained in a letter from him to Mr Smith, in which Mr Spencer ſhews that he is a ſcholar, and has an ear for the muſic of language; for he ſpeaks of the *generoſity* of the *feet* of this Iroquois language, that is, as a Greek critick would expreſs it, ποδες γενναιοι. The Iroquois language may perhaps be remarkable for the nobleneſs of its rhythms; But I am perſuaded, that all original languages have quantity or rhythm of one kind or another. For I hold, that the want of quantity, ſuch as is in all our modern languages of Europe, is a corruption of language: And accordingly it is well known, that all thoſe dialects are corruptions of better languages. See what I have ſaid further upon this ſubject, in my ſecond part, where I treat of *quantity*.

* Condam, Voyag. p. 66.

And thus it appears, that the length, as well as the vocality of the words, is a common property of all barbarous languages. Now, whatever is general muſt have a general cauſe; and let any man who is not ſatisfied with my hypotheſis, conſider what other cauſe he can aſſign.

There is an objection will occur to this hypotheſis of mine, from the example of the Hebrew and the Chineſe languages. The firſt of theſe is undoubtedly a moſt antient language, and by ſome thought the parent of all others; yet it has no extraordinary length of words, and abounds with conſonants; particularly the roots of it have all three conſonants and but two vowels. The Chineſe is likewiſe a language of great antiquity; and yet all its words are monoſyllables.

I anſwer, firſt, with reſpect to the Hebrew, That it is no doubt a language of very great antiquity; and, as it is likely, the parent of many others: But it does not from thence follow, that it is one of thoſe firſt languages which grew out of the firſt attempts of ſavages to articulate, and were formed without any rule or art, which are the ſubject of our preſent inquiry; but, on

the contrary, if what is the general opinion of the learned in that language be true, it muſt be a language of very great art; for they tell us, that the roots of it conſiſt of triads of the ſeveral conſonants variouſly combined. This ſhews evidently, that the language is the work, not of ſavages, but of men of art, who knew the power of the letters, and the effect of the ſeveral combinations of them; and in that way formed the radical words of the language, from which all the reſt are derived, according to certain rules: So that the language is a complete ſyſtem, which never could ariſe out of the rude and caſual eſſays of men firſt beginning to ſpeak.

And as to the objection ariſing from the Chineſe language, neither there is any evidence that it is one of thoſe languages concerning which we are inquiring; but, on the contrary, as the language among the Chineſe is ſo great a part of their learning, there is reaſon to think that it was the work of learned men; more eſpecially as it bears none of thoſe marks of a rude and artleſs language, which I ſhall take notice of afterwards when I come to ſpeak of the formal part of ſuch languages: For it is a language,

ſo far as I can be informed, full and accurate in its expreſſion, with all the parts of ſpeech as diſtinct as in our European languages. For what reaſon the artiſts of this language ſtopt ſhort in the formation of it, and did not enlarge their words by compoſition, derivation, and inflection, is a curious enough queſtion, of which we may take occaſion to ſay ſomething afterwards; but it does not belong to our preſent ſubject.

It may alſo be objected, That the language of the new-diſcovered iſland of Otaheite, mentioned above, is not ſo remarkble for the length of its words, as for their being full of vowels, and of very ſoft pronunciation. As to which, I was informed by one of thoſe gentlemen, to whom the learned world, and indeed all mankind, is ſo much obliged for the toils and dangers they have gone through in ſearch of knowledge, that it is far from being a barbarous language; for they have caſes of nouns, and tenſes of verbs, which they form as we do, the caſes by prepoſitions, and the tenſes by auxiliary verbs; and they have all the parts of ſpeech that we have, without exception even of the adjective, which is not to be

found in any barbarous language, as I ſhall take occaſion afterwards to obſerve. There is likewiſe etymology in their language; that is, derivation and compoſition: And as to the length of their words, he told me, they were generally of ſeveral ſyllables; and he could recollect but one monoſyllable in the whole language, tho' he had applied himſelf particularly to the ſtudy of it, and had made ſo great proficiency as to be able to ſpeak it with tolerable eaſe.

CHAP. VIII.

Of the Formal Part of Barbarous Languages.—An Account of it from Theory.

I COME now to conſider the *formal* part of barbarous languages; that is, the ſounds of them as ſignificant; a ſubject much more curious, and more worthy of the attention of a philoſopher, than mere ſounds in any language, but particularly in the language of ſavages: For, as there is a

neceſſary connection betwixt thinking and ſpeaking, we trace there the progreſs of the human mind in its ſtate of infancy; a matter of the greateſt importance in the hiſtory of man, but of which there can be no other record except the languages of barbarous nations.

In treating of this ſubject I will follow the ſame method that I have followed with reſpect to the material part of ſuch languages.—I will begin with the theory: Not that I pretend to have diſcovered *à priori*, and from ſpeculation merely, what I am to deliver upon this ſubject; for, as I ſhould have known nothing of the original ſtate of man, without having ſtudied the *manners* of barbarous nations; ſo I ſhould have been equally ignorant of the origin and progreſs of language, if I had not ſtudied the *language* of barbarous nations; but becauſe the method of ſcience requires, that we ſhould begin with the principles and cauſes, and from them deduce the facts, though the order of inveſtigation and diſcovery be juſt the reverſe: And if it ſhall appear, that from the facts the theory naturally ariſes, and that the theory again explains and illuſtrates the

facts, it is hoped very little doubt will remain of the truth of my ſyſtem.

Whatever is expreſſed by language, may be reduced to two general heads; things themſelves, and the relations or connections of things. We will begin with the things conſidered abſolutely in themſelves, and as unconnected with one another. And, in this view, they are either *ſubſtances*, and their *properties*; or *actions*, and their *circumſtances*; or, in the grammatical language, they are either nouns ſubſtantive, and adjectives, or they are verbs and adverbs. I will begin with ſubſtances, and their properties. And, in treating this matter, I require only one *poſtulatum*, which certainly will be granted me, That men never would give a name to that of which they had no idea; and if they had not a ſeparate idea of any thing as diſtinguiſhed from other things, they would not give it a ſeparate name.

That there can be no language without ideas, is evident; and it is as evident, that there can be no ideas, at leaſt in the human mind, without abſtraction. We have therefore thought it neceſſary, in this philoſophical inquiry into the nature of language, to explain at ſome length the doctrine of abſtraction; and, however foreign

to the purpoſe it might appear at the time, we hope it will now be found of uſe in explaining the nature of theſe primitive languages. We have there ſhewn, that this operation of abſtraction is performed in a greater or leſs degree of perfection; that, when it is moſt perfectly performed, every quality of the individual is conſidered ſeparately by itſelf: Then it is conſidered, what of thoſe qualities it has in common with other individuals, and what it has peculiar to itſelf. When the mind perceives what is common in any ſubject, then it is ſaid to *generalize;* and, when it unites together the qualities in any ſubject that are common to other ſubjects, and makes *one* of them, then it recogniſes the ſpecies, and is ſaid to have the *idea* of the thing; and that idea is *perfect*, if it take in all that is common to that thing with other things of the ſame ſpecies, and nothing more.

That ſavages ſhould perform accurately this double operation, of firſt ſeparating and then uniting, and ſhould in that way form thoſe perfect ideas which only men of ſcience form, muſt be allowed to be a thing impoſſible. They will no doubt have ſome

general notion of the ſpecies, ſuch as we have ſeen even brutes have; and conſequently ſome obſcure perception of the difference betwixt what is common to the ſpecies and what is peculiar to the individual, and making no part of the idea of the ſpecies; but they will not make this diſtinction accurately, ſo as to take nothing into their idea but what belongs only to the ſpecies. To be convinced of this, we need only recollect, that all our ideas ariſe from perceptions of ſenſe, and that the ſenſe preſents every thing to us as it exiſts in nature; that is, with all its qualities, both thoſe belonging to the ſpecies, and thoſe which are peculiar to the individual. Now, can we ſuppoſe, that the ſavage, in forming his idea of the ſpecies, will take in only what belongs to it, rejecting all the qualities of the individual, which are often more ſtriking and obvious to the ſenſe than the ſpecific differences? If we could conceive his notion to be ſo correct, then no doubt the name he would impoſe would be the proper name of the ſpecies; but as it is impoſſible to ſuppoſe in a ſavage ſuch juſtneſs of thought as can only be the effect of much thinking and obſervation, it is evident that the name with which he marks any

thing muſt denote, beſide the qualities common to the ſpecies, ſome that belong only to individuals. Thus, he will not denote a bear by a name ſignifying only that ſpecies of animal, but he will uſe a word ſignifying a *great bear*, or a *ſmall bear*, a *ſtrong bear*, or a *weak bear*, or any other quality of the individual bear that affects his ſenſes or imagination moſt. They will not have a word denoting a houſe, or a hut, in general, but they will have a word ſignifying a *great* or a *little hut*, or *my hut*, or *your hut*.

Thus it appears, that at firſt there would be no name of any ſubſtance conſidered abſtractly by itſelf, becauſe there would be no ſuch abſtract idea of it; (ſee Ammonius upon the categor. fol. 29.) but the word expreſſing any ſuch ſubſtance would always denote ſomething more than the ſubſtance itſelf. And as to the qualities of ſubſtances, the matter is ſtill clearer; for it is impoſſible to conceive, that ſavages ſhould have any idea at all of qualities abſtracted from the ſubſtance in which they are neceſſarily inherent. It is evident, therefore, that the words of thoſe primitive languages, expreſſing qualities, would only denote them as they exiſt

in nature; that is, inherent in the ſubjects to which they belong: So that the names of qualities would be blended with the names of ſubſtances.

When I was upon the ſubject of ideas, I obſerved, that ſome were more general, and ſome leſs general; and accordingly, in all the languages of civilized men, there are terms more or leſs general. Thus, *animal* is a more general name than *man*, comprehending under it, beſides man, all other ſpecieſes of animals. In like manner, *animated body* is more general than *animal*,—*body* than *animated body*,—*ſubſtance* than *body*; and there the progreſſion ends, *ſubſtance* being one of thoſe univerſals of the higheſt order, known by the name of *categories* or *predicaments* *. The queſtion is, How far our ſavage will proceed in this aſcent? That he will go up to the top of the ladder, muſt appear impoſſible †. But *how*

* See *book* 1. *c.* 6. *p.* 67.

† To remove all doubt in this matter, it may not be improper, by way of addition to what I have ſaid upon this ſubject in my firſt book, to ſtate a little more particularly the ſteps by which the mind riſes from *ſenſe and matter*, where it begins, to theſe ideas of *higheſt abſtraction*. In the firſt place, by comparing together the ſeveral individuals of a ſpecies, and abſtracting what is

far will he proceed? Will he go the length of *animal* in the inſtance given? I think not; and my reaſon is, that the wants of life, from which we are to deduce the improvements

common to them all from what is peculiar to each, we form the idea of what the logicians call the *loweſt ſpecies*; as, for example, of *man*. Then we compare this ſpecies with other ſpecieſes of animals, and by ſeparating what is peculiar to each ſpecies from what is common to them all, we form the more general idea of *animal*. In the ſame manner, from particular ſpecieſes of vegetables we form the general idea of *vegetable*. Then comparing together the animal and vegetable, we obſerve what is peculiar to each; and ſeparating that from what is common to both, we in this way attain to the ſtill more general idea of the τὸ ἔμψυχον, or *animated body*. From thence, by the ſame proceſs, we aſcend to *body*, and from body to *ſubſtance*; where, as I have ſaid, the progreſs ends.—And, with reſpect to *accidents* or qualities of ſubſtances, there is the ſame progreſs from the loweſt ſpecies to the higheſt *genus*; as, for example, from extenſion in particular objects, we riſe to the idea of extenſion in general, or *quantity continuous*. In the ſame manner, from particular numbers of things we get the idea of number in general, or *quantity diſcrete*; and, by comparing thoſe two kinds of quantity together, we attain to the general idea of *quantity*. In this way we aſcend in the ſeries both of *ſubſtances* and *accidents*; and theſe two comprehend the whole of things. That it is impoſſible a ſavage ſhould go far in this progreſſion, muſt appear evident, if we conſider, 1*ſt*, That ſuch ideas are formed by repeated abſtractions, which carry us much farther from ſenſe and matter than we can

of the human mind, would only make it neceſſary for him to have an idea of the ſeveral ſpecieſes of animals with which he was converſant, not to form a more general idea

ſuppoſe the unpractiſed intellect of ſavages to go. *2dly*, The formation of ſuch ideas requires a more extenſive knowledge, and more enlarged views of things, than it is poſſible for ſavages to be poſſeſſed of.

And here we have got to a ſummit, from which we may ſee the whole extent of metaphyſical philoſophy, that is, the knowledge of the principles of things, according to the doctrine of the Pythagorean and Ariſtotelian ſchool: For thoſe philoſophers did not ſtop at the categories, which, according to the account I have given of them, are all ſpecieſes of things formed and complete of their kind; (ſee *Ammon. in Categor. fol.* 47); but they inquired further, whether there were not certain things in nature, which were not themſelves categories, but the principles or elements of categories: For they conceived, that the ſpecieſes of things were not at once formed by nature, but that there was a progreſſion in the formation of them from what was imperfect to what was perfect; that is, from the elemental principles to the things themſelves. Of this kind of elements they found the *point*, the *monad* and the *inſtant*, to be; none of which belong to the category of quantity, being neither magnitude, number, nor time; (ſee *Ammon. ubi ſupra, fol.* 46.); but they are the principles of all the three; the point being that of magnitude, or quantity continuous; the monad, that of number; and the inſtant, that of time. Beſides theſe, there is one elemental principle much more general, being the foundation, or *ſubſtratum*, as we may call it, of all the cate-

comprehending them all. Such an idea would come only in proceſs of time, and after his ſphere of life was ſo much enlarged, and reaſoning ſo far advanced, as to make it neceſſary

gories, I mean *matter;* the ſeveral categories being different forms, which, joined to this univerſal matter, conſtitute the whole viſible world. But how does this union happen? How do matter and form join together to produce the ſeveral ſubſtances and their qualities? Or, in other words, How are things generated? The anſwer is, by *motion*. Here then is another *univerſal*, which is not a category neither, but may be ſaid to be the road or paſſage to all the categories, as no ſpecies of thing here below can exiſt without motion; *Ammon. ibid.* 47. Matter then muſt be moved, and muſt undergo ſome change, before it can receive thoſe forms which conſtitute the nature of things. If ſo, it muſt have in itſelf the capacity of being moved, which, when brought into exertion, is what we call *motion*, as I have explained in a former note, p. 16. & ſeq.; and, according to Ariſtotle, is in the body that *is moved*, not in what *moves*. And therefore he has defined a *natural body* to be that which has in itſelf the *principle of motion*. And this naturally leads us to a ſtill higher order of being. For, if there be motion, there muſt be a mover. And what can this mover be? It cannot be body, which is only paſſive of motion, and may communicate it by impulſe to other bodies, but cannot begin it. What then is it that moves or begins motion? My anſwer is, That it is not matter or body. It is therefore an immaterial ſubſtance, and this ſubſtance I call *mind*. Of which, if we require a definition, I think the beſt that can be given is, that it is a ſubſtance which has in itſelf the power of *moving*. And in this way it is properly diſtinguiſhed by Ariſtotle from body; which,

for him to diſtinguiſh betwixt animal in general, and the vegetable or inanimated nature; and it would not be till all the neceſſaries of life were ſupplied, and till men had found leiſure

as I have ſaid, he has defined to be that which has the power of motion, that is, of *being moved.*

But neither did this philoſophy ſtop here; but they inquired further, whether every mind had *originally* in itſelf this power of moving; and they found, that there was but one mind that had this power originally and independently of itſelf, and that all other minds had it by derivation from this firſt mind; which therefore is the firſt cauſe, the author of all motion, and of all generation and production of every kind; and which Ariſtotle, in the concluſion of his phyſics, has proved to be eternal and unchangeable, immaterial, and without parts.

This philoſophy, ſo noble in appearance at leaſt, and ſo extenſive, which, beginning with the perceptions of ſenſe, pretends to lead us, by gradual removes from matter, to the moſt general and abſtract properties of material things, ſuch as are at a great diſtance from particular objects of ſenſe; and from thence to conduct us to the principles or elements of thoſe general properties, and which are ſtill more removed from matter and ſenſe: And, when we have gone thus far, ſuppoſing us capable of ſtill further progreſs, lead us on to that which is not abſtracted from matter, or exiſting in matter, ſuch as the univerſals we have been ſpeaking of; but that, which, by its nature, is entirely ſeparated from matter, or, in one word, *mind*: And, laſt of all, from mind in general, leads us to the contemplation of the ſupreme mind, and firſt cauſe of all things: ——This philoſophy, I ſay, which, from what is *loweſt*

to philoſophiſe, that they would find out thoſe remote likeneſſes which conſtitute ſuch ideas as thoſe of *body*, *ſubſtance*, *matter*, *ſpace*, and the like. And thus it appears, that the

in nature, conducts us, to what is *higheſt*, and ends in the ſublimeſt theology, ſhould at leaſt excite the curioſity of ſpeculative men among us to look a little more into it, and ſee whether it anſwers to this idea that I have endeavoured to give of it.

Many readers will probably think that, in this and ſome other preceeding notes, I have gone farther into metaphyſics than the nature of my ſubject required. But my apology is, *firſt*, That my digreſſions of this kind will not, I hope, appear quite foreign to the purpoſe; and, as they are thrown into notes, and have not any neceſſary connection with the text, every one may read them or not as he pleaſes. *Secondly*, I muſt confeſs that I intended to give the reader ſome ſpecimen of antient metaphyſics, in order to ſhew how different they are from the faſhionable metaphyſics of this age, the one leading to the pureſt and moſt ſublime theology, the other to the groſſeſt impieties and abſurdities, ſuch as diſgrace this nobleſt ſcience, the very top and pinnacle of philoſophy, from which we diſcover, as far as human ken can reach, the whole of nature, and its great Author. But to this height we can climb only by ſlow and painful ſteps, with the aſſiſtance of much learning, and of a good natural genius. Whereas, ſome in our times, with but poor natural parts, ignorant of the very elements of philoſophy, unaſſiſted even by the common ſchool learning, and not ſo much as knowing the nature of this ſcience, have nevertheleſs engaged in it; and, not content with having thrown away their time

ideas of ſavages, and by conſequence their language, would at firſt be confined to the loweſt ſpecieſes, unleſs where it happened that the ſpecific differences of ſuch ſpecieſes were not ſo readily to be diſtinguiſhed. In that caſe it is natural to ſuppoſe, that they would leap over the loweſt ſpecieſes, and aſcend at once to the genus immediately above them. Thus, *ex. gr.* they would have the idea of a tree, before they had the ideas of the different ſpecieſes, ſuch as aſh, oak, beech, &c.; but, where the ſpecific differences are obvious, as in the caſe of ſuch animals as man, horſe, dog, &c. it is impoſſible to ſuppoſe that they would not form the idea of thoſe ſeveral ſpecieſes before they formed the more general idea of animal.

The laſt thing I have to obſerve, with reſpect to the names of ſubſtances and their

upon ſpeculations, for which they were nowiſe fitted, neither by nature nor education, have, through mere vanity and affectation of ſuperior parts, become authors, and ſent abroad into the world ſuch doctrines as a wiſe and good man, though he had been moſt firmly convinced of the truth of them, would not, out of regard to human ſociety, have publiſhed. For, though ſuch writings are deſpiſed by men of real learning, they have a very bad effect upon the vulgar and half learned.

qualities, is, that many ſubſtances, as well as their qualities, have a ſimilitude one to another; and therefore they are expreſſed in the languages of art by words which have likewiſe a reſemblance: Which reſemblance is produced either by derivation or compoſition. Theſe make a conſiderable part of the grammatical art, known by the name of *etymology*, but of which we cannot ſuppoſe the ſavages to be poſſeſſed. The conſequence of this will be, that every thing, however like to another, will be expreſſed by a word quite different; which will occaſion a great multiplication of words entirely new, that are ſaved by the two artifices above mentioned, of compoſition and derivation; and it will make all the words of the language unconnected with one another: So that there will not be what we call roots in it, nor any thing like a ſyſtem of a language. And what will occaſion a further multiplication of words in ſuch a language, is the neceſſity of denoting the ſame ſubſtance joined to a different quality by a different name, and the ſame quality joined to different ſubſtances, alſo by a different name. Whereas, in languages of art, the ſame ſubſtance, with how many ſoever different qualities, is always known by

the ſame name; and likewiſe the ſame quality is expreſſed by the ſame word, whatever different ſubſtances it is joined with.

I come now to ſpeak of actions and their circumſtances. With reſpect to which, accurate abſtraction conſiders four things ſeparately: 1*mo*, The action itſelf; 2*do*, The agent; 3*tio*, The ſubject of the action, or that which *ſuffers*; and, *laſtly*, The manner in which the action is performed. Let us take, for example, the verb ſignifying to *beat*. There is firſt the action of beating; then the agent or perſon who beats; then the perſon or thing which ſuffers, or is beaten; and, laſtly, there is the manner of beating, whether quickly or ſlowly, ſeverely or gently, &c. But all theſe exiſt together in nature; and therefore the ſavage conſiders them all in the lump, as it were, without diſcrimination; and ſo forms his idea of the action; and according to this idea expreſſes it in words. Whereas, in languages formed by rule, all thoſe things are expreſſed by ſeparate words, or by variations of the ſame word, if that can be conveniently done. Further, there are ſome neceſſary adjuncts of the action, ſuch as time. This too, though inſeparably joined with it in nature, accurate abſtraction

ſeparates, and expreſſes either by a different word, or by a certain variation of the ſame word: But this the ſavage likewiſe throws into the lump, and expreſſes all by the ſame word without variation, or by a word quite different. There is alſo the diſpoſition or affection of the mind of the ſpeaker, with reſpect to the action affirming or denying it, commanding it, or wiſhing it. Theſe diſpoſitions, in regular languages, are expreſſed, either by ſeparate words, or by a variation of the word denoting the action; whereas, in the languages we ſpeak of, they are either not expreſſed at all, or by a word altogether different. And this will produce a further increaſe of words not neceſſary: For as there is no word expreſſing the action ſimply by itſelf, if there be the leaſt change in any circumſtance of the action; nay, if there be but an alteration in perſon, number, or time, or in the diſpoſition of the mind of the ſpeaker with reſpect to the action, there muſt be a new word. For, as they have no ideas of thoſe circumſtances ſeparate from the action, they can have neither ſeparate words to expreſs them, nor variations of the ſame word, even if they knew that

great ſecret of artificial languages, I mean inflection.

The laſt thing I propoſed to conſider was, the expreſſion of the relation or connection of things, and of the words expreſſing them, with one another; which makes what we call *ſyntax*, and is the principal part of the grammatical art, being that for the ſake of which all other parts of grammar are intended, and without which they would be of no uſe *: For the end of grammar is to produce ſpeech or diſcourſe. Now, let ever ſo many words be thrown together of the moſt clear and determinate meaning; yet if they are not ſome way connected, they will never make diſcourſe, nor form ſo much as a ſingle propoſition. This connection of the parts of ſpeech in languages of art is either by ſeparate words, ſuch as prepoſitions and conjunctions; or by caſes, genders, and numbers, in nouns; and, in verbs, by numbers and perſons, and alſo by moods, ſuch as the infinitive and ſubjunctive, which, in the more perfect languages, are all expreſſed by inflection or variation of the principal word. But, in leſs perfect languages,

* See *Theodor. Gazae Grammat. Græc. part.* 3. *initio.*

the moſt of them are denoted by ſeparate words. Now, as every kind of relation is a pure idea of intellect, which never can be apprehended by ſenſe, and as ſome of thoſe relations, particularly, ſuch of them as are expreſſed by caſes, are very abſtract and metaphyſical, it is not to be expected, that ſavages ſhould have any ſeparate and diſtinct idea of them. They will not, therefore, expreſs them by ſeparate words, or by the variation of the ſame word, but will throw them into the lump with the things themſelves. This will make their ſyntax wretchedly imperfect, and very much reſembling the language which they uſed before they had words; I mean, the language of *ſigns*. For we may obſerve, that the greateſt defect in the language of our dumb perſons is the want of ſigns of connection betwixt the ideas which they expreſs by their geſtures. And we may obſerve the ſame defect in the language of our children while they are learning to ſpeak: For, though they have the words, they do not know how to join them together in ſyntax.

This is my notion of the nature of the firſt languages, deduced, as the reader will

perceive, from my philoſophy of the human mind, laid down in the firſt book of this work. And we are now to examine whether this theory is ſupported by fact.

CHAP. IX.

The preceeding Theory illuſtrated by Examples from the Barbarous Languages.

THERE are only three barbarous languages, as far as I know, of which we have any particular account publiſhed that can be depended upon. The three are thoſe I mentioned above; the *Huron*, the *Galibi*, and the *Caribbee*; of which we have dictionaries, and grammars alſo, ſo far as it is poſſible to make a grammar of them, given us by men of letters who had ſtudied them. The Huron is the rudeſt and moſt imperfect of the three; and, therefore, it is from it chiefly that I ſhall take my examples.

And, in the *firſt* place, there is no ſuch thing in this language as derivation or com-

poſition: So that, whatever analogy words may have in their ſignification, they have none at all in their ſound. The Hurons, therefore, have not attained to that art by which a language is connected together, and the number of different ſounds very much abridged. The conſequence of which is, that, if their ſphere of life were not very narrow, there would be ſuch a multiplicity of words entirely different from one another, that the memory would be overburdened, and the language become too bulky and cumberſome for uſe *.

* There is ſo little connection betwixt the words of their language, and ſo little art or regularity in it, that the addition of a negation changes the word entirely. Thus, there is one word which ſignifies, *a thing is handſome;* another quite different, ſignifyng, *it is not handſome.* There is another word which ſignifies, *Thou haſt beat him;* another quite different, which expreſſes, *I have not beaten him.* There is a word which ſignifies, *I know it well;* another, altogether unlike it, ſignifying, *I do not know it.* And any the leaſt change of circumſtance makes the expreſſion quite different. Thus the word which ſignifies *wounded with a hatchet,* is quite different from the word which denotes ſimply *wounded.* *In the hut,* is expreſſed by a word quite different from the word ſignifying *hut;* and there is a word different from either, which ſignifies *my hut.* Nay, there is a word which ſignifies *two years,* altogether different from that which ſignifies *one year, four years,* or *ten years.*

2*dly*, Subſtances are commonly not expreſſed by themſelves, but in company with their qualities, and often with actions concerning them, as ſhall afterwards be obſerved. Even the common relations of father, mother, uncle, aunt, are not expreſſed ſimply by themſelves, but with the adjuncts of *mine*, *thine*, *his*, and by words entirely different one from another.

3*dly*, There is no ſuch thing in the language as a quality expreſſed without the particular ſubſtance in which it is inherent: For there is not in the whole language one adjective, that is, a word denoting a quality inherent in ſome undetermined ſubject; far leſs have they abſtract nouns, as they are called, derived from adjectives, ſuch as *goodneſs*, *badneſs*, and the like. They have not, therefore, a word which expreſſes *good* or *bad*; but they have words which ſignify *you are good*, or *you are bad*.

4*thly*, In actions, they do not commonly make the diſtinctions above mentioned, betwixt the *action*, the *agent*, the *ſubject* of the action, and the *manner* of it; but very often expreſs all together by the ſame word. And hence it is, as our author obſerves in his preface, that they have a great many words,

which are ſo many ſentences. Thus, they expreſs by one word, *There is water in the bucket*; by another word, quite different, *There is a great deal of water*; by a third, different from either, *You have overturned the water in the fire.* But by one and the ſame word they expreſs, *Thou* ſhalt be *very glad of it*, and *Thou* art *very glad of it.* Their verbs commonly expreſs the action with the ſubject of the action; and but very few denote the action ſimply by itſelf. Thus, there is no word which ſignifies ſimply *to cut*, but many that denote *cutting fiſh*, *cutting wood*, *cutting cloaths*, *cutting the head*, *the arm*, &c. In like manner, they have no word that denotes the ſimple idea of *giving*; but there are two or three pages in our author's dictionary filled with words ſignifying *to give* different things. This again multiplies their words ſo much, that, if it were not for the reaſon above mentioned, their language could not ſerve the ordinary purpoſes of life.

5thly, As to tenſes, numbers, and perſons, our author tells us, in his preface, that they commonly do not diſtinguiſh them otherwiſe than by the accent or tone; and, in the

ſame way, they diſtinguiſh, whether the verb affirms or interrogates. The different tenſes, therefore, numbers, and perſons, are commonly expreſſed by the ſame word; or, if they are expreſſed by different words, it is by words altogether different, and unconnected with one another. Thus, *I have ſaid*, *Thou haſt ſaid*, *He hath ſaid*, are all expreſſed by words quite different;—*I have ſaid it*, by a fourth word, not at all like any of the other three; and *I have ſaid to him*, by a fifth word, likewiſe entirely different.

6thly, There is not in the Huron language, nor in either of the other two, as far as I can diſcover, any word denoting a higher genus, ſuch as *animal* or *vegetable*, and far leſs *matter*, *ſpace*, *being*, or ſuch like metaphyſical entities. This is obſerved by M. de la Condamine of the language of the ſavages that he ſaw upon the banks of the river Amazons, who have words of ſuch an enormous length; and it is true of all the barbarous languages without exception. In what I have ſaid above, I hope I have ſufficiently explained the reaſon of this ſo general property of thoſe languages.

Laſtly, With reſpect to ſyntax, they appear to have none at all; for they have not prepoſitions or conjunctions. They have no genders, numbers, or caſes, for their nouns, nor moods for their verbs. In ſhort, they have not, ſo far as I can diſcover, any way of connecting together the words of their diſcourſe. Nor is this a peculiarity in their language; but it is the ſame in the languages of the Galibi and Caribs, as we are informed by the authors who have given an account of thoſe languages, tho' neither of them be ſo rude and imperfect as the Huron. Thoſe ſavages, therefore, tho' they have invented words, uſe them as our children do when they begin to ſpeak, without connecting them together; from which we may infer, that ſyntax, which completes the work of language, comes laſt in the order of invention, and perhaps is the moſt difficult part of language. It would ſeem, however, that perſons may make themſelves underſtood without ſyntax. This I think can be done no other way but by the arrangement of the words, (which is a conſiderable part of the ſyntax in modern languages that have not caſes), by accents or tones, or by geſtures and ſigns. The

Hurons, and I believe all the barbarous nations, have a great variety of tones; they have alſo much action in their ſpeaking; and there can be no doubt but that the poſition of the word will commonly determine what other word in the ſentence it is connected with.

And thus I think it appears from fact, as well as theory, that thoſe primitive languages are natural cries, a little varied and diſtinguiſhed by articulation, ſignifying things as they are conceived by ſavages; that is, mixed together as they are in nature, without being divided into certain claſſes, commonly known by the name of *parts of ſpeech*, and without being connected together in ſyntax.

CHAP. X.

Progreſs of the Barbarous Languages towards Improvement.—Account of Languages that are not barbarous ſpoken by Barbarous Nations;—ſuch as that of the Garani,—of the Algonkins,—of the Goths,—of the Laplanders,—of the Greenlanders,—of the Albinaquois.—This laſt too artificial.—The Progreſs of Abſtraction and Generalization deduced from the Progreſs of Language.

BUT, although the Huron language be, as I have ſaid, the moſt rude and imperfect of any that have come to my knowledge, yet, even in it, we can ſee beginnings of improvement; which are the more to be attended to, that they are ſo many ſteps of the progreſs of the human mind in the art of thinking.

And, in the *firſt* place, as the great defect of all barbarous languages is, the expreſſing different things by the ſame word, without abſtracting and ſeparating them one from a-

another; where-ever we ſee any one thing expreſſed by a diſtinct word, it is to be reckoned an improvement of the people in the faculty of thinking, and, by conſequence, of their language: For, if they had not firſt formed a ſeparate idea of the thing, they never would have expreſſed it by a ſeparate word. I have obſerved already, that they are not ſo far advanced in abſtraction as to divide the quality from the ſubſtance in which it is inherent, and to expreſs it by a diſtinct word; but they have made an abſtraction leſs violent, and with which it was natural they ſhould begin; I mean, of the ſubſtance from the qualities; and conſidered the ſubſtance as exiſting by itſelf, without any particular quality, and have given it a ſeparate name. This, I think, muſt neceſſarily have been the firſt abſtract idea, that was in any degree perfect, formed by men: And accordingly the Hurons have gone ſo far as to form ſome ſuch ideas, and give names to them. For example, they have a word which denotes *trees* ſimply; others which denote certain ſpecieſes of trees, of fruits, and of animals; others that denote works of art, without the addition of any quality.

2*dly*, In generalization, they have begun to go beyond the loweſt ſpecies, not only in trees, but in animals: For, though they have not a word, as I have already obſerved, to expreſs the genus *animal*, yet they come pretty near it, having a general word which denotes *the quadrupeds of the foreſt*, and another which denotes *the tame quadrupeds*, ſuch as dogs.

3*dly*, They have made ſome progreſs in that moſt artificial part of ſpeech the *verb*; for, in the *firſt* place, they have carried abſtraction ſo far, in ſome few inſtances, that they have abſtracted the action from the agent, and from every circumſtance accompanying it, and have invented a word to expreſs it ſimply by itſelf. Then they have made the diſtinction of the three perſons; and, in ſome few of their verbs, this diſtinction is marked by a variation or inflection of the word, as in the expreſſion, *I am hurt*,—*Thou art hurt*,—*He is hurt*, the ſame word, with a different inflection in the beginning, expreſſes all the three perſons. This indeed is uncommon; but it is not ſo uncommon that one of the perſons ſhould be diſtinguiſhed from the reſt by a variation of the word; as, in the word which ſignifies *to*

ſneeze, the ſecond perſon of the preſent is diſtinguiſhed from the firſt perſon by the addition of the letter *ſ* to the beginning of the word. Thus, the firſt perſon, *I ſneeze*, is *atſonſta*, and it is the ſame with the third; but the ſecond perſon is *ſatſonſta*. And in this very verb there is a mood, namely, the infinitive, viz. *atſhonſta*, denoting the action by itſelf, without any perſon. I have found too one verb, and but one, where there is a diſtinction of the time by a variation of the word; it is the verb ſignifying *to ſay*, in which the preſent, *I ſay*, is diſtinguiſhed from the perfect, *I have ſaid*, by a different form of the word.

But theſe are all improvements that have been made upon the language: For the original ſtate of it, as is evident from what ſtill remains of it, was as I have repreſented it, and ſtill continues ſo with reſpect to the caſes of nouns, and the ſyntax; which inclines me to believe, that theſe two parts of language are of moſt difficult invention.

There is one thing concerning theſe Hurons which deſerves our notice; that, altho' they are but very little advanced in the arts of life, and their language particularly is, as we have ſeen, ſo imperfect, yet they have a

decimal arithmetic ſuch as we have; for they count to *ten*, and then turn back again, as we do. Our author has given us the names of the principal numbers up to two thouſand, which I have ſet down below for the entertainment of the curious, and at the ſame time to ſerve as a ſpecimen of their language *. Whether their arithmetic goes

* 1, Eſcate; 2, Teni; 3, Hachin; 4, Dac; 5, Onyche; 6, Houhahea; 7, Sotaret; 8, Ateret; 9, Nechon; 10, Aſſan; 11, Aſſan-eſcate-eſcarhet; 12, Aſſan-teni-eſcarhet; 13, Aſſan-hachin-eſcarhet; 14, Aſſan-dac-eſcarhet; 15, Aſſan-onyche-eſcarhet; 16, Aſſan-houhahea-eſcarhet; 17, Aſſan-ſotaret-eſcarhet; 18, Aſſan-ateret-eſcarhet; 19, Aſſan-nechon-eſcarhet; 20, Teni-quivoiſſan; 21, Teni-quivoiſſan-eſcate-eſcarhet; 30, Hachin-quivoiſſan; 40, Dac-quivoiſſan; 50, Onyche-quivoiſſan; 60, Houhahea-quivoiſſan; 70, Sotaret-quivoiſſan; 80, Ateret-quivoiſſan; 90, Nechon-quivoiſſan; 100, Egyo-tivoiſſan; 200, Teni-tevoigna-voy; 1000, Aſſen-attevoignavoy; 2000, Teni-tivoiſſan-attevoignavoy.—— And their arthmetic goes no farther; at leaſt our author ſays nothing more of it.

I will alſo give the names of numbers among the *Algonkins* another nation in North America, from the Baron *Hontan's Voyages*, *vol.* 2. *p.* 217. 1, Pegik; 2, Ninch; 3, Niſſoue; 4, Neou; 5, Narau; 6, Ningoutouaſſou; 7, Ninchouaſſou; 8, Niſſouaſſou; 9, Changaſſou; 10, Mitaſſou; 11, Mitaſſou-achi-pegik; 12, Mitaſſou-achi-ninch; 13, Mitaſſou-achi-niſſoue; 14, Mitaſſou-achi-neou; 15, Mitaſſou-achi--narau; 16, Mitaſſou-achi-ningotouaſſou; 17, Mitaſſou-achi-ninchouaſſou; 18, Mitaſſou-achi-niſſouaſſou; 19, Mitaſſou-achi-changaſſou; 20, Ninchtana; 21, Ninchtana-achi-pegik; 22, Ninchtana-achi-ninch;

farther, our author does not ſay; but I imagine it does not, as I do not think their ſphere of life does require any further uſe

23, Ninchtana-achi-niſſoue; 24, Ninchtana-achi-neou; 25, Ninchtana-achi-narau; 26, Ninchtana-achi-ningotouaſſou; 27, Ninchtana-achi-ninchoaſſou; 28, Ninchtana-achi-niſſoaſſou; 29, Ninchtana-achi-changaſſo; 30, Niſſouemitana; 31, Niſſouemitana-achi-pegik, &c.; 40, Neomitana; 50, Naran-mitana; 60, Ning-outouaſſou-mitana; 70, Ninchouaſſou-mitana; 80, Niſouaſſou-mitana; 90, Changaſſou-mitana; 100, Mitaſſou-mitana; 1000, Mitaſſou-mitaſſou-mitana.

From this account, I think it is evident, that in the language of the Algonkins, they have two words denoting the number *ten*, viz. *mitaſſou*, and *mitana*; and therefore it is an error of Hontan, or of his printer, when he makes the name of *twenty* to be *ninchtana*; for it ſhould be *ninch-mitana*; that is, *twice ten*, in the ſame manner as *niſſoue-mitana*, *thrice ten*, and ſo on, till we come to a thouſand, which is *ten ten-times and ten-times*; that is, the *cube* or *third power* of *ten*.

For the further entertainment of the curious, I will ſubjoin an account of the arithmetic of the inhabitants of the new-diſcovered iſland of *Otaheite*, in the South ſea, furniſhed me by Mr Banks, whoſe heroic labours in ſearch of knowledge do honour to the age in which he lives, as well as to his country. The Otaheiteans count to 10, and then turn back, as the Hurons and Algonkins do. The names of the cardinal numbers are as follows. 1, Tahai; 2, Rua; 3, Torou; 4, Ita; 5, Rima; 6, Whenu; 7, Hetu; 8, Warow; 9, Iva; 10, Ahourou. When they have got thus far, they turn back as we do, and ſay, *ma-tahai*, that is, *one more*, or 11; *ma-rua*, 12; and ſo on, till they come to 20, for which they have a new word, *tahai-taou*, that

of numbers; and I obſerve, that men in that ſtate of human nature very ſeldom go farther in any thing than the neceſſities of life require. The people of Kamſchatka go no farther than the number *twenty*, the number of their toes and fingres; and then they aſk, *What ſhall we do next?* * And the arithmetic of the Caribs we are told, goes no farther than that of the Cyclopes in Homer, viz. to the num-

is, *one ſcore*. Then they proceed, not by *tens*, but by *ſcores*, ſaying, *tahai-taou-tahai*, *tahai-taou-rua*; that is, *one ſcore and one*, *one ſcore and two*, and ſo on, not ſtopping as we do, and turning back at 30, but going on, and ſaying, *one ſcore and ten*, *one ſcore and eleven*, *one ſcore and twelve*, and ſo on, till they come to forty, which they call *rua-taou*, that is, *two ſcore*. Then they go on, counting in the ſame way, till they come to *torou-taou*, that is *three ſcore*, or 60; and ſo they go on till they come to *ten ſcore*, which they call *aou-manna*. Then they go on in the ſame manner till they come to *ten times ten ſcore*, that is, 2000, which they call *mannu-tine*; and then they go on till they come to ten times that number, or *twenty thouſand*, which they call *torou-tine*; and after this they have no new name for any number, though Mr Banks believes they may count farther.

* This fact is taken from the *Annual Regiſter* for the year 1764, p. 4. where there is an account given of the inhabitants of *Kamſchatka*, taken from the Ruſſian diſcoveries in that country.

ber *five;* and yet theſe people have made greater progreſs, as we ſhall ſee preſently, in the art of language, than the Hurons. This I think makes it very probable, that the Hurons have learned their knowledge of numbers from ſome other nation more advanced in the arts of life: And it is not unlikely that the Caribs have got their language in the ſame way; for there have been ſtrange migrations and mixtures of nations at different times; and indeed there is hardly any thing that we can conceive to be poſſible that has not happened in a long courſe of time *.

The language of the Galibi, according to the account of it given in the grammar and dictionary before mentioned, is much leſs imperfect than that of the Hurons; for they have gone ſo far as to divide ſpeech into parts, as we do. They not only mark the different perſons in their verbs by a variation of the word, but they have alſo diſtinct names for them; ſo that they have pro-

* This is an obſervation of Herodotus, *lib.* 5. *c.* 9. where he mentions a colony of Medes in the middle of Scythia. This no doubt is a very extraordinary thing; but, ſays he, παν γενοιτο αν εν τῳ μακρῳ χρονῳ; an obſervation that could be made only by a man who had ſtudied as much as Herodotus the hiſtory of *mankind.*

nouns; and they have even adjectives. They have likewiſe thoſe pegs or nails in the ſtructure of language which we call conjunctions. But they have very little of compoſition or derivation. They want caſes altogether, as well as the Hurons; and their ſyntax, except that they have conjunctions, and ſome prepoſitions, is as imperfect.

The Caribbee language has an affinity, as I obſerved before, with that of the Galibi; but, from the account given of it by the miſſionary above mentioned, it appears to be more imperfect, though not ſo imperfect as that of the Hurons; for they have ſome kind of derivation and compoſition, and more tenſes for their verbs than the Hurons: But they often expreſs a whole ſentence by a word; which is not the caſe of the Galibi language.

So far therefore the art of language appears to be advanced among the Galibi and Caribs, and even among the Hurons; but we are not to imagine, that in none of the nations that are accounted barbarous, it has not gone further: For there is a people that they call *Garani*, in the country of Paraguay in South Ameri-

ca, of whoſe language I have ſeen a dictionary and grammar, in the Spaniſh language, printed at Madrid in 1639, written by a Jeſuit, and dedicated to the Virgin Mary. It is very accurate, and the work of a learned grammarian; and from the account he gives of this language, it is a regular formed language, as much as any that is ſpoken at preſent in Europe, and preferable to them all in this reſpect, that it has declenſions of nouns by inflection, and conjugations of verbs, expreſſing likewiſe by flection the tenſes, numbers, perſons, and voices. And they have a peculiarity in the firſt perſons plural of their verbs, ſuch as is not to be found in any other language that I know, except in the language of the people of Brazil, as I was informed by Monſ. de la Condamine at Paris, to whom I was obliged for the uſe of the grammar and dictionary of the Garani: For they have a firſt perſon plural *incluſive*, that is, including both the perſon who ſpeaks, and the perſon to whom he ſpeaks; and another *excluſive*, that is, excluding the perſon to whom you ſpeak; both marked by different inflections of the word. In French, they make the diſtinction by the expreſſion *nous autres*, which is the *excluſive* plural; and in

Engliſh, by a greater circumlocution. This is an accuracy of thinking, which ſhews them to be far advanced in the grammatical art, and makes me have the ſame conjecture concerning them that I mentioned with reſpect to the Galibi. For I think it is impoſſible that they who have made ſo little progreſs in the other arts of life, ſhould have invented ſo complete a language; and as they could not have learned it from any of the nations preſently in their neighbourhood, I think it is very probable, that, ſome time or other, by one of the many changes and revolutions that have happened in this earth, they have been connected with ſome more civilized nation, from whom they have learned to ſpeak.

There is another language of art ſpoken in South America, by a nation inhabiting a part of that great country, known by the name of *Patagonia*. Of this language we have an account, in a ſmall book very lately publiſhed by one Thomas Falkner, a Jeſuit of Paraguay, who was 40 years in South America, and is now a chaplain in a popiſh family in England. And, according to his account of it, which I think

may be depended upon, as he ſays he learned it, it is a language of very great art, not inferior in its grammar even to the Greek. For it has the three great artifices of language, compoſition, derivation, and flection; by the laſt of which, it forms its caſes, numbers, and tenſes. It has a dual number, as well as the Greek *, and in tenſes, it is as

* In the ſecond volume of this work, p. 88. I have ſhewn that the dual number is a matter, not only of art, but of philoſophy, derived from an accurate knowledge of the nature of numbers. Such of my readers as are not philoſophers, or have not ſtudied arithmetic as a ſcience, will be more apt to be convinced of the truth of this, by the following facts: *Firſt*, all the barbarous languages, that I have ſtudied, have no dual number; tho' it be poſſible, that ſome languages, otherwiſe barbarous, may have borrowed, from ſome more perfect language, the uſe of a dual number; as we have ſeen that ſuch nations have got from others, more civilized, the uſe of numbers. *Secondly*, All the languages that are perfect in their grammar, ſuch as the Greek, the Hebrew, and the Gothic, of which I ſhall afterwards ſpeak, have this number. *Thirdly*, Thoſe perfect languages, before they were completely formed, had it not. This appears from the example of the Latin, which, as ſhall be ſhewn afterwards, is a dialect of the Greek, came off from the parent ſtock before the language was completely formed; and therefore it has neither an article, nor the ſame variety of tenſes, nor a dual number, as the Greek has. And, *laſtly*, thoſe languages, which are corrupted from more perfect languages in which there is a dual number, have none ſuch. Accordingly, the

rich as the Greek, having, beſides the ordinary tenſes, a preterperfect, two aoriſts, and two futures. And it has not only reciprocating verbs, like the Greek middle verbs,

Engliſh and the other dialects of the Teutonic, which are no more than corruptions of the Gothic, and likewiſe the modern Greek, being a corruption of the antient, have no dual number.

It may be thought that barbarians would naturally uſe the dual number, becauſe they had two eyes, two hands, and two legs. It might as well be ſuppoſed that they would uſe a *pentad number*, becauſe they have five fingers upon each hand, and five toes upon each foot. Beſides, if the uſe of the dual number be ſo natural a thing, how came the nations that had once the uſe of it ever to lay it aſide, as it is ſo much more eaſy to retain what we have than to acquire any thing new? It therefore appears that, through ignorance and barbarity, thoſe nations have loſt this part of the art of the languages they once ſpoke, as well as the reſt. As to the opinion of thoſe, who think that the human mind, when it firſt ſeparated *one* from *multitude*, and from thence proceeded to number, ſtopped at the duad, and were able to invent ſo artificial a thing as even the moſt barbarous language is, before they could count *three*, it is a notion that, I think, can hardly be ſeriouſly maintained.

Thoſe who imagine, that there was no philoſophy in the world before Plato and Ariſtotle, or even Thales and Pythagoras, will no doubt think it incredible, that languages, ſo antient as the Hebrew, Greek, or Gothic, ſhould derive any thing from philoſophy. Thoſe, likewiſe, who fancy that the world, the older it grows, muſt neceſſarily

but alſo verbs which diſtinguiſh by flection, not only the pronoun, which is the agent of the action, but the pronoun, which is the ſubject of it, whether it be *I*, *thou*, *we*, *ye*, *he*, or *they*.

There is another language, from the name of which we ſhould expect nothing but rudeneſs and barbarity, and yet it is a great work of art, ſuch as may be compared even to the Greek, and in many reſpects is preferable to the Latin. The language I mean is the *Gothic*, the parent of all different dialects of the Teutonic, ſuch as the German, the Dutch, Swediſh, Daniſh, Icelandiſh, and of the Engliſh among the reſt. There is only one book of it extant, and that but

become the wiſer, and more learned in all the arts and ſciences, particularly in this moſt ingenious and uſeful art of language, will laugh at what I have ſaid of the corruption of languages in later times; and will think that the diſuſe of a dual number, ſo far from being a corruption, is an improvement of the Greek and Gothic—But for ſuch readers I do not write; nor for ſuch philoſophers as cannot find out either art or philoſophy in the ſtructure of the Greek language. The ſame philoſophers, I ſuppoſe, diſcover no wiſdom or contrivance in the fabric of the univerſe; but imagine that the one may have been produced by mere *matter* and *motion*, without *mind* as they think the other grew out of mere popular uſe, and was formed as it were by *chance*.

a ſhort one, viz. a tranſlation of the four goſpels, which is preſerved in the univerſity of Upſal in Sweden. There are alſo preſerved ſome fragments of the epiſtle of Paul to the Romans. From theſe remains, ſmall as they are, we diſcover that it is a complete language in itſelf, having its roots all of its own growth, from which it forms the reſt of its words by derivation and compoſition; and it is copious enough to expreſs every thing in thoſe tranſlations by words of its own, without borrowing one from the original Greek, as I have been aſſured by a gentleman learned in language, and who has ſtudied this very diligently. It has all the ſeveral parts of ſpeech diſtinguiſhed from one another, and among others the adjective of three genders. It forms the caſes of its nouns by flection, and has five declenſions as well as the Latin; in all which, there are four caſes, diſtinguiſhed from one another by the difference of termination, viz. the nominative, genitive, dative, and accuſative. It has an article of three genders, as the Greek has, and alſo a dual number in the two firſt pronouns, and in the verbs. Theſe have four moods, as well as the Latin verbs, formed by the change of termination, and

three tenſes, with the variety of perſons and numbers, all formed in the ſame way. And, *laſtly*, it has prepoſitions, conjunctions, and a regular ſyntax *

The learned reader, when he conſiders the figure that the Goths have made in the hiſtory of Europe, will not perhaps be much ſurpriſed that they ſhould have ſpoken a language ſo perfect. But what will he ſay of the language of the Laplanders, a people as obſcure as they are barbarous? There is a grammar of the language of the Laplanders of Findmark, a country to the North of Norway, and under the dominion of the King of Denmark, publiſhed by a Dane called *Canutus Leemius*, who intitles himſelf profeſſor of the Lapland language. And he muſt have underſtood it very well, as he was ten years miſſionary among them, and preached to them in their own language †. And that he was a man of letters and a grammarian, is evident from the Latin ſtyle which he writes. The grammar I have not ſeen; but, in the ac-

* See *Edward Lye's Saxon and Gothic Dictionary*, lately publiſhed, with a grammar of theſe languages, by *Owen Manning*.

† Vid. cap. 4.

count which he has publiſhed of the people, he has given us the ſubſtance of it; from which it appears that it is a regular language of art, having all the parts of ſpeech, compoſition, and derivation, with caſes, numbers, tenſes, perſons and moods of verbs, formed by flection. It has alſo a regular ſyntax; and, what is remarkable, it has, like the Gothic, a dual number in the two firſt primitive pronouns, and likewiſe in the verbs, both marked by flection. This ſo remarkable an affinity betwixt the two languages, perſuades me, that either the one is derived from the other, or that they are both of the ſame original ſtock.

Further, there is a language ſpoken by a people ſtill more barbarous than the Laplanders; and, if we may judge from the country and climate that they inhabit, the moſt miſerable people on earth, I mean the Greenlanders; which, from the account given of it by an author who ſhould have been very will informed concerning it, may be alſo reckoned a language of art. The author I mean is David Crantz, one of a religious ſociety in Moravia called *Unitas Fratrum*, which was inſtituted chiefly for the purpoſe of propagating the goſpel among barbarous nations.

He was ſent by the ſociety to viſit their miſſion in Greenland; and he has publiſhed a hiſtory of that country, from the memoirs of miſſionaries who had been there about thirty years; and, among other things, he has given us a particular account of the language of the country; from which it appears, that it is not a barbarous language, tho' ſpoken by ſo barbarous a people, but a language of art. The ſubſtance of what he ſays of it is, That it has all the ſeveral parts of ſpeech, even the adjective, and is very rich in words. The tenſes of its verbs, of which there are five conjugations, are formed by flection. It is has one caſe, viz. the genitive, formed in the ſame way; the reſt by prepoſitions, as we form ours: And it has a dual number, as well as a ſingular and plural, all marked by the termination. What is more, it has a regular ſyntax, the ſubſtantive always beginning the ſentence, as our author ſays; the other words being connected together by copulatives and infinitives. Our author, who appears to be a man both of ſenſe and learning, ſays of this language, 'That it is 'not ſo raw and incomplete as we might ex-'pect from ſuch unrefined people. One 'might rather entertain the conjecture, that

'they muſt have had ſome judicious clear-
'heads, to reduce their tongue to ſuch an
'artful and pretty rule. *' He has obſerved in it one thing in which it agrees with the Hebrew, viz. the uſe of *affixa* and *ſuffixa*. And it may be further obſerved, that it has, like the Hebrew, no more than the three primary tenſes, viz. the preſent, paſt, and future. And, what I think a remarkable conformity, the radical part of the verb, from which all the reſt are derived, is the third perſon ſingular of the paſt tenſe: And there is alſo a reſemblance in the order and ſtructure of the ſentences, the ſubſtantive always going before the adjective or participle. I think it therefore evident, that this language is not the invention of ſo barbarous a people, but that it is a dialect of the Hebrew, or Teutonic, or ſome other oriental language, that has come from the Eaſtern parts of Europe, or the Weſtern parts of Aſia, having ſpread with the people into this remote northern country, from whence it has been propagated to the countries adjoining to Hudſon's Bay inhabited by the Eſquimaux Indians, who, as it is now diſcovered, ſpeak the ſame language with the

* Vol. I. b. 3. c. 6. p. 218.

Greenlanders. Of this wonderful propagation of language through countries ſo remote from one another, I ſhall ſay more in the ſequel.

The laſt language I ſhall mention deſerves particular notice, being the moſt artificial, if not the moſt perfect language, of any that I have hitherto mentioned. It is the language of the *Algonkins*, once a great and flouriſhing nation in North America, till they were almoſt entirely deſtroyed by the Iroquois. It is one of the two mother-tongues in that part of the world, the Huron being the other; and all the other languages in North America are dialects of one or other of theſe two. La Hontan ſays, that the Algonkin is the learned language of Canada, as much eſteemed there as the Greek and Latin are in Europe *; and he has given us ſome account of it, but a very imperfect one. I have had occaſion to be better informed concerning it by the French Jeſuit I mentioned before, who had a much better opportunity of knowing it than the Baron Hontan; for he was ſeven years miſſionary among the Albinaquois, a nation of Indians, who ſpeak a dialect of this language, of which

* Vol. 2. p. 220.

he was perfectly maſter, as otherwiſe he could not have diſcharged the duty of his miſſion. What he told me of it was in ſubſtance as follows.

Although it be, as I have ſaid, a very artificial language, as will afterwards appear, it ſtill retains ſeveral marks of a primitive language, though much farther removed from the origin of the art than the other mother-tongue of North America, that being the language of the moſt antient people of North America, viz. the Hurons. For example, it has not that part of ſpeech we call an adjective, that is, a word denoting a *quality*, exiſting in an indefinite ſubject; but they ſupply it by the verb; as if, in Engliſh, I ſaid, Inſtead of *a wiſe man*, *a man who is wiſe*; or, to bring it nearer to the idiom of their language, as if, inſtead of ſaying in Latin, *vir ſapiens*, I ſhould ſay, *vir qui ſapit*.

2*do*, They have no word to expreſs the action ſimply and abſolutely; *ex. gr.* they have no word denoting the abſtract action of *doing*; but it muſt be doing ſome particular thing, or kind of thing. In like manner, they have no word to expreſs ſimply *going*; but they have one denoting *going by land*, and another expreſſing *going*

by water. And there is in all their verbs a diſtinction, which ſhall be afterwards explained, whether the ſubject of the action is definite or indefinite: So that the verb always comprehends in ſome ſort the ſubject, and never denotes the action ſimply and abſtractedly.

3*tio*, They have no poſſeſſive pronouns, but only a primitive one, which they likewiſe uſe for a poſſeſſive.

4*to*, They had not originally in their language any abſtract nouns, that is, ſubſtantives expreſſing abſtract qualities of ſubſtances, though they have now got ten ſuch words, as ſhall be afterwards explained

5*to*, They have not yet got ten words expreſſing abſtract relations, ſuch as *father* or *ſon*; but they have words which expreſs *my father*, or *my ſon.*

Theſe are the marks of rudeneſs and ſimplicity in their language. But the following ſhew a great deal of art and contrivance. For, In the firſt place, as to the ſound of their language, they have a great deal of variety, uſing all the letters we uſe, except only the *f* and the *v*, which none of the North-American languages uſe: Whereas the Huron, beſides wanting the *f*, has none of the labial conſonants. Then, they have ſeveral

aſpirates, and alſo long and ſhort ſyllables. And Mr Roubaud mentioned ſome words ſignifying different things, which are only diſtinguiſhed one from another by the length or ſhortneſs of the ſyllables. Further, the language is far from being harſh, or of unpleaſant ſound: But, on the contrary, is ſweet and flowing; for you very ſeldom find in it two conſonants together; and by eliſions, where it is neceſſary, they prevent the gaping of vowels upon one another.

With reſpect to the words conſidered as ſignificant, they uſe thoſe three great artifices of language which I have ſo often mentioned, viz. compoſition, derivation and inflection.

With reſpect to compoſition, they have as much of it as any other language, and by far the greater part of the words are compoſed of verbs and adverbs, (the adverb being a part of ſpeech much uſed by them), expreſſing in a very ingenious manner the nature of the thing ſignified. Derivation alſo is uſed by them as in other languages; and particularly they have a great number of derivatives from the third perſon ſingular of the preſent of the verbs, by which they ex-

preſs the abſtract action of the verb, as from *curro*, *curſus*.

As to inflection, they have more of it than any other language I have heard of. For not only in that way do they form the caſes of their nouns and the tenſes of their verbs, but they form verbs expreſſing ſo many different modifications of the action, that it is difficult to aſcertain the number and variety of them.

With reſpect to the caſes of their nouns, they have three formed by different inflections, viz. the nominative, accuſative, and ablative, if the noun be *noble*, that is, if it expreſs a *living thing*, or *what belongs to a living thing*: But if it be *ignoble*, that is, expreſſing an *inanimate thing*, it has only two caſes, a nominative and accuſative.

The verbs, in the firſt place, form their tenſes by inflection: I mean their preſent and their paſt; for, as to the future, they form it as we do, by auxiliaries, ſuch as *ſhall* and *will*. They have two forms of the perfect, both diſtinguiſhed by inflection; the one denoting, that they themſelves ſaw the action that is paſt, and that therefore it may be depended upon as certain; the other

expreſſing, that they have it only by report.

The voices and moods they form alſo by inflection; by which I would be underſtood to mean, an alteration of, or an addition to, the final ſyllable of the word.

As to the perſons of their verbs, they form two of them, viz. the firſt and ſecond, by prefixing to the verb the pronoun; but as there is only one other perſon, they ſay that needs no mark of diſtinction; and therefore they give you only the ſimple tenſe of the verb, without any thing prefixed. They have, like ſome other of thoſe barbarous languages which I have obſerved, two firſt perſons plural, diſtinguiſhed by inflection; the one including the perſon to whom the ſpeech is addreſſed, as when we ſay, *we are all men;* the other excluding him, as when an Engliſhman, ſpeaking to a Frenchman, ſays, *we Engliſhmen do ſo and ſo.* This in French is denoted by the expreſſion, *nous autres.*

But, beſides what is commonly expreſſed by inflection of verbs, the Albinaquois denote in that way the ſubject of the action, or the noun that is governed by the verb,

whether it be noble or ignoble, and alſo whether it be in the accuſative or the ablative; ſo that the verb is truly *declined*, as well as the noun, and agrees with the noun it governs, much in the ſame way that noun and adjective agree in the learned languages: And further, they expreſs by inflection a diſtinction not known in any other language that I am acquainted with, whether the ſubject of the action be a definite and particular thing, or an indefinite.

But, beſides all this, they expreſs by inflection of, or addition to the termination, the various modes of the action: And in this way they create derivative verbs almoſt without number. Thus, they have not only frequentative verbs, like thoſe of the Latin, and verbs which denote that the action is reflected upon the actor, ſomething like the Greek middle verbs; but they have verbs which denote the poſſibility of doing or ſuffering the action, in place of whom it is done, whether in my own place, in your place, or in the place of a third perſon; and, in like manner, for whoſe behoof, &c. And further, by the addition of a ſyllable, they expreſs whether the action is to be conſidered as a great action, or contrarywiſe; and whether as a ſad or doleful one; and, laſtly, they have

a derivative verb which expreſſes the negation of the action.

By this variety of expreſſion, the forms of their verbs become almoſt infinite; ſo that Monſ. Roubaud reckons, that, from a ſingle preſent of a verb, there may be ſome hundreds of different forms derived, and many more, if the verb be noble; and as the different forms are commonly expreſſed by addition of ſyllables, this makes their verb run out into a prodigious length of word. He gave me for example the verb *neteberdan*, which ſignifies, *I govern ſome indefinite thing;* and he ſhowed me more inflections and changes of that verb than I could well number, beſides very many more which he could upon recollection add. I obſerved, that in all thoſe changes the two ſyllables *te-ber* always remained invariable, and they were the only part of the verb that did ſo; from whence I was apt to conclude, that theſe ſyllables denoted the action of the verb abſolutely and ſimply. But he ſaid, there was no ſuch thing in the language, and that *teber*, though it may be called the theme or radical verb, had no ſignification at all by itſelf.

He aſſured me at the ſame time, that this almoſt infinite variety of their verbs was all according to the exacteſt rule and ſtricteſt analogy, without thoſe irregularities and anomalies to be obſerved even in our learned languages. And, if you once know the rules by which thoſe different verbs are formed, you may form as many of them as you have occaſion for with great facility. One day, in converſation with a ſavage of his miſſion, he obſerved to him the great order and regularity of his language, with which he ſeemed to be much ſurpriſed, as a thing he had never before attended to. He ſaid, the invention of a language appeared to him an extraordinary thing, and wondered who had invented his language. You Europeans, ſays he, have much more wit than we; but has any of you invented a language?

The women among them, as they are their hiſtorians, who preſerve the memory of their families and genealogies, ſo they may be alſo called the keepers or preſervers of their language: For they really underſtand ſo much of the grammatical art, that they not only know the rules of ſpeaking, but can render a reaſon for them; while the men are contented to learn from them the

practice, without troubling themſelves much about the reaſon for it.

Mr Roubaud obſerved, while he was among them, that the miſſionaries had made conſiderable alterations in their language, not only by giving them new names for things, but by introducing new forms of ſpeech; and particularly, that they had taught them to form from their verbs abſtract ſubſtantives; that is, ſubſtantives expreſſing the abſtract quality, ſuch as we form from our adjectives, as from *good*, *goodneſs*, and the like. And he ſuſpects, that they have learned in like manner from the miſſionaries to form verbal nouns, *i. e.* ſubſtantives expreſſing the action of the verb abſtractedly, as from *curro*, *curſus*; and his reaſon for thinking ſo is, that they do not uſe this way of ſpeaking in converſation among themſelves, but only with the miſſionaries. And this, and other alterations which the miſſionaries have introduced, makes the language they ſpeak with one another ſo different from what they ſpeak with the miſſionaries, that he was often at a loſs to underſtand them converſing with one another.

From this account of the language of the

Albinaquois I am diſpoſed to conjecture, that, in the progreſs of language, which I imagine has been very long, there has been invented a language too artificial, ſuch as this of the Albinaquois, and ſuch as it is ſaid the Armenian language is *, before a language of complete art was formed, which is always as ſimple as the nature of the thing will permit. Firſt, there was a language altogether rude and barbarous, ſuch as we have deſcribed; then was formed a language of art; but by very ſlow degrees, as we have alſo ſeen. Before the art was completed, there was an intermediate ſtage of a language, too intricate and complex in its ſtructure. And in this reſpect I imagine the invention of language reſembles the invention of machines. At firſt a machine is contrived very clumſy, and anſwering very ill the purpoſe for which it is intended; then art falls to work with it, and makes it better; but ſo complex, and with ſo many ſprings and movements, that it is not eaſily uſed. But art ſtill proceeding, and obſerving the defects and inconveniences, at laſt deviſes a

* See Dr Smith on the formation of languages, p. 452. where he ſays, that the Armenian language has no leſs than ten caſes.

way of ſimplifying the machine, and making it perform its operations with as few powers and movements as poſſible: And this is what I call the perfection of art. To this perfection the language of the Albinaquois is not yet arrived: But I cannot doubt, that if the Albinaquois were to cultivate arts and ſciences as much as the antient Greeks did, and among other arts the art of language, they would come at laſt to ſimplify their language, and make it perhaps as perfect as the Greek.

Before I conclude this chapter, it may not be improper to preſent to the reader the progreſs of the firſt operations of the human intellect, I mean abſtraction and generalization, as deducible from the progreſs of language. For, as I have obſerved, we can, in that progreſs, trace, with great certainty, the progreſs of the human mind. And, in the *firſt* place, the individual is generalized, as it exiſts in nature, the ſubſtance with its qualities, the action with its circumſtances. So that, at firſt, there will be no abſtraction, except of the moſt general attributes, ſuch as thoſe of time and place. For, without ſome previous abſtraction, as we have ſeen, there can be no generalization; and the perception

would be nothing but a perception of ſenſe. Then more qualities would be abſtracted from the ſubſtance, more circumſtances from the action; and the idea would then conſiſt of the ſubſtance, and its principal qualities, thoſe, at leaſt, which attracted the attention of the obſerver moſt; and of the action and its principal circumſtances. The idea of a *bear*, for example, would be taken off only with the qualities of ſize, ſtrength, or fierceneſs; and the idea of the action of *beating*, with the circumſtances of violent, or gentle, with or without effuſion of blood. The next ſtep, in this progreſs of the mind, is to diveſt the ſubſtance altogether of its qualities, the action of its circumſtances; and ſo form a ſeparate idea of each. And thus far the Hurons have gone. For they have generalized many ſubſtances by themſelves; and they have begun to generalize actions in the ſame manner. The next idea would be farther removed from the individual, and more the operation of the intellect: For it would repreſent ſomething that does not exiſt in nature, but is intirely the creature of the mind; I mean the idea of a genus, ſuch as that of animal or vegetable. And here too the Huron has begun to

make ſome progreſs: For tho' he have not come ſo far as the ideas I have mentioned, yet he has formed the notion of a *quadruped of the foreſt* and of a *tame quadruped.* And here ends the progreſs of the Huron; ſo that the further progreſs of the mind we muſt trace in other languages more perfect. And from theſe we diſcover, that the next ſtep of abſtraction and generalization is the idea of qualities ſtill inherent in ſome ſubſtance, but not in any particular or definite ſpecies of ſubſtance, but in ſubſtance in general. And this idea is expreſſed by a part of ſpeech well known by the name of adjective, but which is not to be found in the Huron, nor in any other barbarous language, that I know. The next ſtep we can alſo trace by the means of language, and it was to form an idea of the quality abſtracted from every ſubſtance, definite or indefinite. This idea is expreſſed by what the grammarians call an abſtract noun, denoting the quality *in abſtracto*, not *in concreto*, as it is denoted by the adjective. Of this kind are the nouns *goodneſs*, *juſtice*, *bravery* and the like. And that ſuch was the next ſtep, in order of time, is evident from this, that, in our language, in Greek, and

Latin, and, I believe, every language, the nouns of this kind are all derived from the corresponding adjectives; whereas, if the order of things had been followed, and not the progreſs of our minds, the etymology would have been juſt the reverſe: For the abſtracted quality is undoubtedly prior, in the order of nature, to the quality joined with any ſubſtance. And, accordingly, by philoſophical etymology, as I ſhall ſhew in another part of my work, *juſt* is to be conſidered as derived from *juſtice*, not *juſtice* from *juſt*.

The next ſtep, I imagine, would naturally be, to form ſeparate ideas of the ſeveral circumſtances of the time, place, and manner of action—of the perſons acting—whether the firſt, ſecond, or third perſon—the diſpoſitions of the mind of the ſpeaker with reſpect to the action—and, *laſtly*, whether the action was ſuffered, or done. By ſuch abſtractions and generalizations, were produced adverbs, conjugations of verbs, tenſes, moods, and voices.

The laſt part of this progreſs, that appears from the ſtructure of language, is the formation of ideas of the connections and dependencies of things upon one ano-

ther, and their relation to one another in reſpect of time, place, ſituation, cauſe and effect, and the like. From theſe ideas ariſe the declenſion and caſes of nouns, and thoſe parts of ſpeech we call prepoſitions and conjunctions. It is by ſuch words that the ſyntax of language is chiefly formed; and as ſyntax is the laſt thing perfected in language, it from thence appears, that thoſe abſtract ideas of relations are among the laſt formed by the human mind.

The progreſs, by theſe ſteps, I am perſuaded, has been very ſlow; for which it is not difficult to account, from the explanation I have given, in the beginning of this work, of the nature of abſtraction. For, being immerſed, as we have ſhewn, in matter and ſenſe, at our firſt entrance into this life, and perceiving only by the intervention of bodily organs; when we come to think in this new way, and which may be called unnatural, as it ſeparates what is in nature united, it is no wonder that we go on ſlowly, and with difficulty, abſtracting very little at firſt, then more; and ſtill going on from abſtraction to abſtraction, till at laſt we arrive at the ideas of higheſt abſtraction, which are of all others

the ſimpleſt, and in the order of nature firſt, but laſt in the order of our conceptions. Nor is it to be wondered that a very ſmall part of mankind are able to aſcend ſo high, when we conſider how far thoſe univerſals are removed from our original perceptions.

Thus it appears, that, from the ſtudy of language, if it be properly conducted, the hiſtory of the human mind is beſt learned, eſpecially in the firſt ſteps of its progreſs, of which it is impoſſible there can be any other record than what is preſerved in language.

CHAP. XI.

Several Queſtions concerning the firſt Languages.—What Words of them were firſt invented, or what Names of Things.—Whether they have any Radical Words.—Whether there be only one primitive Language.

IT may be aſked concerning thoſe primitive languages, What words in them were firſt invented? My anſwer is, That

if by *words* are meant what are commonly called *parts of ſpeech*, no words at all were firſt invented; but the firſt articulate ſounds that were formed denoted whole ſentences; and thoſe ſentences expreſſed ſome appetite, deſire, or inclination, relating either to the individual, or to the common buſineſs which I ſuppoſe muſt have been carrying on by a herd of ſavages, before language was invented. And in this way I believe language continued, perhaps for many ages, before *names* were invented *. For that the firſt articulate cries ex-

* And now I will give the explication I promiſed of the paſſage above quoted from Horace.

"Donec verba quibus voces ſenſuſque notarent,
"Nominaque invenêre."——

Where Horace makes a diſtinction betwixt *verba* and *nomina*, which has not been explained by any commentator, that I know; but which, if rightly underſtood, agrees perfectly with my ſyſtem; for by *verba* he means, as I underſtand him, thoſe articulate ſounds expreſſing only appetites and deſires; and this I think he has ſufficiently explained himſelf by the deſcription he has given of them,—*quibus voces ſenſuſque notarent*: Importing, that the firſt words marked the inarticulate cries formerly uſed, which I underſtand to be meant by *voces*, and by conſequence the inclinations and feelings of the mind expreſſed by thoſe cries, which I take to be the meaning of the word *ſenſus*: For that word in Latin does not denote *ideas*, or the operations of the intellect, but the movements of that part of our mind which is

preſſed the names of things, I can no more believe than that the neighing of a horſe, or the lowing of a cow, is a name for any thing.

If it be further aſked, What names were firſt invented? My anſwer is, The names of the objects that they were moſt converſant with, and had moſt frequent occaſion to name. Thus we ſee the Hurons firſt gave

the ſeat of deſire and inclination, and is called by the Greek philoſophers the *Orectic*, (το ορεκτικον). So it is uſed by Cicero, *lib.* 3. *de oratore cap.* 25.; where he ſpeaks of the *ſenſus et dolores, quos habet oratio.* And every where in his writings, ſo far as I obſerve, *ſenſus animi*, or *ſenſus* ſimply, denote always the affections, inclinations, or what we commonly call the feelings of the mind. And it was uſed in this ſenſe, by a very natural metaphor, from the ſenſes of the body, which are denoted by *ſenſus* in its proper ſignification; as Quintilian has obſerved, *lib.* 8. *cap.* 5. *initio.* It is true, that Quintilian, in this paſſage, tells us, that the uſe of the word, in his time, was extended to ſignify all the conceptions of the mind—*ſed conſuetudo jam tenuit, ut mente concepta ſenſus vocaremus.* But this uſe of the word certainly did not obtain in the days of Cicero, nor, I preſume, when Horace wrote, which could not be long after Cicero's death. If the words be underſtood in this ſenſe, (and I do not ſee in what other they can be underſtood), Horace very properly places the *verba* firſt, as being undoubtedly firſt invented; and then the *nomina*, which came next in order, and which certainly ſignify the names of things, not whole ſentences expreſſing ſome deſire or volition.

names to trees, and to thoſe animals that they hunted or tamed.

It is an ingenious conjecture of the author before quoted *, and I think a very probable one, that the firſt names of objects were proper names denoting the individual; but afterwards, by being applied to objects of the ſame kind, on account of their reſemblance, they became general names of the ſpecies. For the natural progreſs of the human mind, with which language always keeps pace, is from individuals to generals; and therefore, as individuals muſt neceſſarily have been firſt known, it is likely that they were firſt named.

The radical words in a formed language may be ſaid, in one ſenſe, to be the firſt words of the language, and accordingly are called *primitives*. But ſuch words are far from being the firſt invented words: For the barbarous languages having no compoſition or derivation, can have no roots; but they belong only to artificial languages, and are the invention of the grammatical art, to make the words of a language connect and

* Dr Smith on the formation of language, in the beginning.

hang together, and to ſave the too great multiplication of them, as ſhall be afterwards ſhewn. And, in general, it is in vain to ſeek for any thing like art in the truly primitive languages; which being produced by the neceſſities of life, and uſed only to ſerve the purpoſe of thoſe neceſſities, had at firſt no rule or analogy of any kind: So that, whatever we find like art or regularity in them, we are ſure is an improvement of the original jargon.

There is another queſtion concerning language that has been much agitated, namely, Which is the truly primitive language from whence all the others are derived? But firſt I think it ought to be determined, whether there be any one primitive language. Upon the ſuppoſition indeed, that language could not have been invented by man, but was revealed from heaven, it is evident, that this revealed language is the only primitive one, and that all the other languages of the world are only dialects of it, more or leſs pure. And then the queſtion will be, Whether that firſt language is yet extant? or, if it be loſt, What language now remaining comes the neareſt to it? But, on the other hand, ſuppoſing language to be

the invention of man, (and it is upon that ſuppoſition I proceed), I ſee no reaſon to believe, that it was invented only by one nation, and in one part of the earth; and that all the many different languages ſpoken in Europe, Aſia, Africa, America, and the new world that we have now diſcovered in the South ſea, are derived all from this common parent. And, accordingly, I have all along ſpoken, not of one primitive language, but of primitive languages in general. At the ſame time, I am far from being of opinion, that every nation has invented the language it uſes: On the contrary, I am perſuaded, that ſo difficult an art as language has not been the invention of many nations; but having been once invented, and being by its nature of long duration, as well as eaſy communication, it has been propagated to countries very diſtant from thoſe where it was firſt invented. But the duration and propagation of language is a curious ſubject, which deſerves to be conſidered and explained at ſome length; after which, we ſhall be better able to judge whether one language could be ſpread all over the face of the earth.

CHAP. XII.

Of the Duration of Language, and the Facility of its Propagation.—Of the Celtic, and the great Extent of Country over which it is ſpread.—Of the Teutonic, and its Propagation.—Of the Greek and Latin, and their Connection with the Teutonic.—That the Latin is the ſame Language with the antient Pelaſgic; and of the Affinity betwixt the Latin and Hebrew;—alſo betwixt the Latin and Hetruſcan.

AS language is among the firſt arts invented by men, ſo it is among the laſt that are loſt. It cannot be totally and at once loſt, except by the total deſtruction of the nation, either by ſome natural calamity, like that of the Atlantic iſland ſinking, as it is ſaid, into the ſea, or by the extirpation of war. In this laſt way the Celtic language was loſt in England, when it was conquered by the Saxons, and was preſerved only in the

mountains of Wales, which were not conquered by them. But, in the caſe of moſt other conqueſts, the language of a country has not been totally loſt, but mixed with that of the conquerors; and out of that mixture a corrupt language produced. This was the caſe of the conqueſt of the ſeveral provinces of the Roman empire by the northern nations. In Italy, for example, the language that took place after it was ſubdued by the Lombards, was a mixture of Latin and the language of that people, which is the preſent Italian. In France, after the conqueſt of the Franks, the Language was mixed of Latin, of Tudeſque, or Teutonic, which was the language of the Franks, and of what ſtill remained of the antient language of the country, viz. the Celtic; and of thoſe three languages the modern French is compoſed *, but principally of Latin.

But it has ſometimes happened, that the conquered retained their language entire, and that even the conquerors adopted it. This was the caſe when the conquered nation was much more numerous than the

* See *Monſ. Bullet*'s preface to his Celtic Dictionary.

conquerors. For example, when the Normans conquered England; as they did not, like the Saxons, extirpate the people, and as they were but a ſmall number, compared with the body of the Engliſh nation, Engliſh continued to be the language of the country, notwithſtanding that the Norman was the language of the court and of the law, and that the Normans, for many years after the conqueſt, were poſſeſſed of all the great baronies, and held all the offices of dignity and truſt in the kingdom; yet, under all thoſe diſadvantages, the Engliſh language ſtood its ground, and at laſt prevailed over the Norman, and came to be the general language of the country. In like manner, and for the ſame reaſon, the Tartars, tho' they have conquered China thrice, and are now, and have been for many years, in poſſeſſion of it, have not eſtabliſhed their language there; but, on the contrary, the Chineſe is not only the language of the country, but even of the court, and of all kinds of public buſineſs. The Romans likewiſe, when they conquered Greece, did not make their language triumph there as well as their arms; not only for the reaſon I have mentioned, viz. the ſmallneſs of their

numbers, but for another reaſon, as I imagine, namely, the greater excellency of the Greek tongue, which made it in time prevail even over the language of their conquerors. This happened after the ſeat of the empire was removed to Conſtantinople: For, though Latin continued to be the language of the court at Conſtantinople, and was the language of the law for more than two hundred years after, down to the time of Juſtinian the Emperor, who compiled a great body of law in that language, which is the Roman law that we uſe at this day; yet the Greek at laſt prevailed, inſomuch that, within leſs than a hundred years after Juſtinian, they were obliged to tranſlate his collection into Greek *. And when Conſtantinople was taken by the Turks, the Latin was as much loſt in the Eaſtern empire, as the Greek was in the Weſt.

For the reaſon laſt mentioned, the very reverſe has happened in ſome inſtances, (ſuch is the variety of human affairs in the matter of language, as well as in every thing

* This tranſlation is what is called the *Baſilica*; and has been much uſed by *Cujatius*, and other learned lawyers, in explaining and correcting Juſtinian's collection.

elſe); and the language of the conquerors, though few in number, has become the language of the conquered nation. Thus, when the Incas of Peru conquered the ſeveral provinces of that country, they introduced, with their other arts, their language, which the people learned, inſtead of the barbarous jargon that they ſpoke before *; and the ſame, I am perſuaded, was the caſe of the barbarous inhabitants of Greece when they were conquered, or rather tamed and civilized, by the Pelaſgi.—But of this I will ſpeak more hereafter. The Romans too endeavoured to make their language univerſal through the whole *orbis Romanus*; and, in ſome of the provinces, particularly in Gaul, they did make the Latin the prevailing language. But ſtill the Celtic continued to be ſpoken, at leaſt among the lower ſort of people: and it is for this reaſon that, as I have juſt now obſerved, the French has at this day ſome Celtic in its compoſition.

And not only is language the longeſt lived of all the arts of men, but it may be ſaid

* *Garcilaſſo de la Vega*'s Royal Commentaries of Peru, *lib.* 7. *c.* 1. *p.* 249.; *c.* 3. *p.* 253. *et ſeqq.*

to live even after its death: For by the writing-art languages have been preſerved many hundred years after they ceaſed to be living. In this way the learned languages of Greek and Latin continue ſtill to be the admiration and delight of the ſcholar; and the Hebrew, which has ceaſed to be ſpoken theſe two thouſand years, (for it appears to me that the genuine Hebrew was loſt among the Jews as a living language during the Babyloniſh captivity), is ſtill to be underſtood. And what is yet more extraordinary, ſome languages, even without literary monuments, have been preſerved in the countries where they were ſpoken, long after they ceaſed to be ſpoken. This happens by the names of places; for in this way the Celtic is preſerved, both in France and Spain, without any written monuments: And indeed there are very few ſuch monuments of that language to be found any where. As language therefore is the moſt laſting of all the memorials of men; ſo, of language itſelf, the names of places are what laſt the longeſt.

Another obſervation that I will here make concerning language is, that it is not only moſt permanent and durable, but it is one of

thoſe arts which men eaſily carry about with them, and perhaps is that of all others which is the moſt eaſily communicated, eſpecially to thoſe who have been in the uſe of ſpeaking any other language; for to a mute ſavage it would, I believe, be of very difficult communication. It is by this property of language that the ſame languages have been propagated to ſo many parts of this earth: For where-ever the people who ſpoke them went, there alſo the language would go. Now, as in the early ages of the world the migrations of nations, or of colonies from them, were very frequent, it happened in that way that languages were very far ſpread: So that there is nothing more certain, than that every country has not invented a language for itſelf; but, on the contrary, there is the greateſt reaſon, as I have ſaid, to believe, that language has been the invention but of few countries, and that from thoſe countries it has been propagated to many others. It is of this propagation of language that I am now to ſpeak; and I will begin with the language of the Celts, who certainly, if not the moſt antient, were among the moſt antient inhabitants of Europe.

The Celtic, if I can believe the accounts I have heard of it, is ſpread over a great part of the world, and is to be found in places ſo remote from one another, as ſhews, that there muſt have been a moſt extraordinary intercourſe and communication among men in antient times. The French Jeſuit above mentioned, from whom I got my information concerning the language of the Albinaquois, told me as a fact which he himſelf could atteſt, that one of his miſſion having loſt his way in the woods, and ſtrolled into the country of the Eſquimaux, ſtaid long enough there to learn the language of that people; after which he came back again to his countrymen; and happening one day to go aboard a French ſhip at Quebec, he found there among the ſailors a *Baſque*, that is, a native of the country at the foot of the Pyrenean mountains on the ſide of France, whom, by his knowledge of the Eſquimaux language, he underſtood very well, and the Baſque likewiſe underſtood him, ſo that they converſed together. Now the language that the Baſques ſpeak is undoubtedly a dialect of the Celtic *; and it is now diſcovered,

* This is a fact diſputed by ſome; and there is a Spaniſh dictionary and grammar of the Biſcayan lan-

that the Eſquimaux language is the ſame which is ſpoken by the natives of Greenland. So it appears, that the Celtic was not only the antient language of France, Spain, Britain, and Ireland, but that it has ſpread itſelf over the northern parts of Europe and America.

And further, with reſpect to this language, I am informed by a gentleman from the highlands of Scotland, who was ſome years

guage, which is a dialect of the Baſque ſpoken on the other ſide of the Pyrennees: And from this grammar and dictionary it appears, as it is ſaid, that there is no connection betwixt it and that dialect of the Celtic ſpoken in the highlands of Scotland, commonly called *the Gaelic* or *Erſe*. On the other hand, I am credibly informed, that a Welch gentleman, of the name of Williams, who was ſome time in the country of the Baſques, ſays, that, at firſt, indeed he did not underſtand their language; but, when he had been ſome time among them, he diſcovered that the difference betwixt it and the Welch was in the pronunciation, more than in the words; ſo that he came ſoon to underſtand them, and they him. It is, however, probable, that, if he had only ſeen the words in a grammar or dictionary, written in the letters to be ſounded after the Spaniſh faſhion, he would hardly have diſcovered any affinity. Beſides this, there is a curious fact, related by Lhoyd in his Archæologia, that the names for numbers, in the Biſcayan language, are the names of the fingers in Welch. So that the name of the *thumb* ſtands for *one*; the name of the *forefinger*, for *two*, &c.

in Florida in a public character, that the language of the natives there has a great affinity with that dialect of the Celtic which is ſpoken in thoſe highlands; and particularly, that their form of ſalutation, by which they aſk you, *Are you well?* is the very ſame *.

* It ſeems very extraordinary how the Celtic language ſhould have found its way from Europe, or the north-moſt part of America, to a country ſo very remote as Florida, through ſo many nations, who, as far as we know, ſpeak languages altogether different. But there is a fact related by one *Herbert*, a Welchman, that will account for it. This Herbert was a great traveller in the laſt century, and has publiſhed a book of travels, in which he has taken occaſion to relate, that a diſpute having happened about the ſucceſſion of the kingdom of Wales in the twelfth century, the party that was worſted, with their prince at their head, imbarked, and went in ſearch of a country where they might live quietly; and having directed their courſe weſtward, after a long navigation, they landed ſomewhere in the gulf of Mexico, and made a ſettlement there. After which a part of them having returned to Wales, came back again with more ſhips, and a greater number of men, in order to reinforce the colony, which had been much weakened by the attacks of the natives. This, our author ſays, is recorded by ſeveral Welſh hiſtorians; and he ſpeaks of it as a fact that cannot be conteſted. And indeed the truth of it is ſtrongly ſupported by the affinity which the gentleman above mentioned obſerved betwixt the language of Florida and the Celtic,

Those who would desire to know more of this very antient language, and of the many languages that are supposed to be derived from it, may consult M. *Bullet*'s me-

of which the Welsh is a dialect: For it would appear, that this colony of Welsh, after having in vain tried to support themselves against the natives, have mixed and incorporated themselves with them, and at last been totally lost in them. There are other proofs of the fact alledged by our author, such as the names of capes and promontories in Florida, and of beasts and birds, which he affirms to be Welsh. And a further proof of some European nation having made a settlement in Florida many years ago, is a fact that I have from information which I think I can trust to, that there are regular rows of trees to be found in that contry, carried on in straight lines for a great way. See Kalm's travels, *vol.* 3. *p.* 121. *et seqq.* from whence it appears that there are marks of culture by the plow in North America, and stone pillars still to be seen.

All this, I know, will appear incredible to those who are prepossessed with the opinion, that Columbus and Americus Vespucius were the first discoverers of America and the adjacent islands. But the fact truly is, that, before this discovery by the Welsh, America had been found out by some Norwegians from Greenland: For the Norwegians having made a settlement in Greenland in the end of the tenth century, some adventurers from thence, in the beginning of the eleventh, discovered North America, and made a settlement somewhere, as it is conjectured, about the mouth of the river St Laurence; where having found the vine growing, they from thence called the country *Winland*. This is re-

moirs of the Celtic language, publiſhed in French, in three volumes in folio, at *Beſançon*, in 1759.

The Teutonic alſo is a language very far ſpread. It is at preſent the language of all Germany, Holland, Denmark, Sweden, Norway, and Iceland; and the Engliſh is a dialect of it. The parent of this language is the Gothic; of which, beſides ſome inſcriptions, there is only extant a tranſlation of the four goſpels, preſerved in the univerſity of Upſal in Sweden, and ſome fragments of the epiſtle of Paul to the Romans. But we know it was once the language, not only of the Goths, but of the Vandals, the Lombards, and the Jepidae: For Procopius, a contemporary hiſtorian, tells us, that all thoſe nations ſpoke the ſame language *. Now,

corded in the annals of Iceland, which was firſt peopled from Norway, and from whence the colony came that made the ſettlement in Greenland. See a *Hiſtory of Denmark*, publiſhed by one *Mallet*, in French, in 1765. In ſhort, it appears from the whole hiſtory of mankind, that wonderful migrations of people have happened in different ages of the world, and by that means languages have been propagated to countries very remote from thoſe where they were firſt ſpoken.

* See *Procop. de bello Vandalico, lib.* 1. *cap.* 2.; and *Grot.* preface to his tranſlation of Procopius.

as the Goths, and, in general, all the conquerors of the Roman empire, came from the antient Scythia and Sarmatia, that is, the north-eaſt parts of Europe and north-weſt of Aſia, comprehending all the country now known by the name of *Tartary*, and a conſiderable part of Muſcovy and Siberia, it is evident, that, ſome time or another, the Gothic muſt have been the language of all that great tract of country. And accordingly there are ſtill remains of it there to be found. For there is ſo great a reſemblance betwixt the language preſently ſpoken in Perſia * and the Teutonic, that it is impoſſible it can be accidental. And Buſbequius the German, who in the ſixteenth century was ſent ambaſſador by the Emperor to Conſtantinople, relates †, that he there converſed with two men from Crim-Tartary, and found, that the language there had a great affinity with the German. For proof of which, he has given us their names of numbers, which

* That country is at preſent inhabited by a Tartar nation; and ſuch were the Parthians, who poſſeſſed themſelves of it ſome time after the death of Alexander the Great. See *Herodian's Hiſtory*.

† *Epiſt.* 4. *p.* 136.

are plainly Teutonic; and alſo ſeveral other words, out of many more, that he heard, which any man who knows Engliſh may underſtand. And not only have they thoſe veſtiges of the language of the Goths ſtill remaining in the eaſt; but their characters, I mean the Runic letters, are to be found there. For Strahlemberg, the Swediſh officer, who has written an account of Siberia and Tartary, relates, that he found Runic inſcriptions in the deſerts of Tartary. *

* See Mallet's Hiſtory of Denmark, book 1. cap. 13. p. 345.

It is a vulgar error, that the ſwarms of people, which at different times over-ran the Roman empire, under the names of *Goths*, *Wiſigoths*, *Oſtragoths*, *Vandals*, *Allands*, *Lombards*, and *Jepidae*, came originally from the north, and were northern nations; for the fact is, that they all came from the eaſt, which is the true *officina gentium*, not the north; and were but one nation, divided into different tribes, and diſtinguiſhed by different names. For they were all originally Goths or Getes, two names for the ſame people, as is evident from many paſſages of antient authors, collected by a very learned writer, *Robert Sheringham, de Anglorum gentis origine, cap. 9. p. 179. et cap. 10. p. 189.*; where he likewiſe ſhews, that the *Gothi* were the ſame people with the *Scythae*; the former being the name which the people gave themſelves, the latter the name which the Greeks gave them; and which was the only name by which they were known in antient times, before they broke

If it could be further proved, that the Celtic, and Teutonic, or its parent the Gothic, were originally the ſame language,

into the Roman empire. Now, that the Goths came from the eaſt, and particularly from the Palus Maeotis, and adjoining countries, is evident, not only from the monuments of them ſtill to be found there, ſuch as their language and characters, but from what Grotius, in his preface to Procopius, relates of one Joſaphat Barbarus, a Venetian nobleman, who had lived in thoſe countries; and reported, that, in the neighbourhood of the *Palus Maeotis*, there was a people, who called themſelves *Goths*, and their country *Gothia*. And Joſeph Scaliger, in his *Canon. Iſagog. lib.* 3. *p.* 138. affirms, that there were people calling themſelves Goths, who lived in the territory of Praecop in Crim-Tartary, and uſed the Gothic letters invented by Wulphila the Gothic biſhop. It appears, therefore, that the greateſt part of the preſent inhabitants of Europe came from the Tauric Cherſoneſe, and other countries about the Euxine and *Palus Maeotis*. Among the laſt invaders of the Roman empire were the Hunns, who, as Ammianus Marcellinus informs us, lib. 31. cap. 2. came likewiſe from beyond the Palus Maeotis. They, after ravaging Germany, France, and Italy, ſettled at laſt in Hungary; and are now called by all the other nations of Europe *Hungarians*; but they call themſelves *Majars*. What this name meant no body knew till lately, that the Ruſſians diſcovered, in that tract of country which lies betwixt the Black ſea and the Caſpian, a people who call themſelves by that name. This fact I have from a gentleman of my acquaintance, who has been much abroad, and of whoſe accuracy as well as veracity nobody, who knows him, can have any doubt.

which is the opinion of M. Bullet above mentioned, it would, I think, eſtabliſh this propoſition, That there was but one language antiently ſpoken all over the north, north-eaſt, and weſt of Europe, and the northern and weſtern parts of Aſia. Now, I ſhould think it might be diſcovered, with pretty great certainty, whether there was any affinity betwixt the Celtic and Teutonic, by comparing the moſt antient remains of the Celtic, which I believe the poems of Oſſian are, with the moſt antient remains of the Teutonic, ſuch as the Edda, and other old Icelandiſh poems, and with, what is ſtill more antient, the remains of the Gothic. This would be a very fine field of criticiſm, by which I think a great diſcovery might be made, not only in the matter of language, but with reſpect to the hiſtory of mankind: For, if it could be proved, that the Celtic and Teutonic languages were originally the ſame, it would go far to prove, that the two races of people were likewiſe the ſame originally *.

* Since the firſt edition of this volume was publiſhed, I have ſeen a pamphlet, written, as I am informed, by Major Vallency, the ſame who has publiſhed a grammar of that dialect of the Celtic ſpoken in Ireland. In this pam

He was ſent by the ſociety to viſit their miſſion in Greenland; and he has publiſhed a hiſtory of that country, from the memoirs of miſſionaries who had been there about thirty years; and, among other things, he has given us a particular account of the language of the country; from which it appears, that it is not a barbarous language, tho' ſpoken by ſo barbarous a people, but a language of art. The ſubſtance of what he ſays of it is, That it has all the ſeveral parts of ſpeech, even the adjective, and is very rich in words. The tenſes of its verbs, of which there are five conjugations, are formed by flection. It is has one caſe, viz. the genitive, formed in the ſame way; the reſt by prepoſitions, as we form ours: And it has a dual number, as well as a ſingular and plural, all marked by the termination. What is more, it has a regular ſyntax, the ſubſtantive always beginning the ſentence, as our author ſays; the other words being connected together by copulatives and infinitives. Our author, who appears to be a man both of ſenſe and learning, ſays of this language, 'That it is 'not ſo raw and incomplete as we might ex-'pect from ſuch unrefined people. One 'might rather entertain the conjecture, that

'they muſt have had ſome judicious clear 'heads, to reduce their tongue to ſuch an 'artful and pretty rule. *' He has obſerved in it one thing in which it agrees with the Hebrew, viz. the uſe of *affixa* and *ſuffixa*. And it may be further obſerved, that it has, like the Hebrew, no more than the three primary tenſes, viz. the preſent, paſt, and future. And, what I think a remarkable conformity, the radical part of the verb, from which all the reſt are derived, is the third perſon ſingular of the paſt tenſe: And there is alſo a reſemblance in the order and ſtructure of the ſentences, the ſubſtantive always going before the adjective or participle. I think it therefore evident, that this language is not the invention of ſo barbarous a people, but that it is a dialect of the Hebrew, or Teutonic, or ſome other oriental language, that has come from the Eaſtern parts of Europe, or the Weſtern parts of Aſia, having ſpread with the people into this remote northern country, from whence it has been propagated to the countries adjoining to Hudſon's Bay inhabited by the Eſquimaux Indians, who, as it is now diſcovered, ſpeak the ſame language with the

* Vol. I. b. 3. c. 6. p. 218.

Greenlanders. Of this wonderful propagation of language through countries ſo remote from one another, I ſhall ſay more in the ſequel.

The laſt language I ſhall mention deſerves particular notice, being the moſt artificial, if not the moſt perfect language, of any that I have hitherto mentioned. It is the language of the *Algonkins*, once a great and flouriſhing nation in North America, till they were almoſt entirely deſtroyed by the Iroquois. It is one of the two mother-tongues in that part of the world, the Huron being the other; and all the other languages in North America are dialects of one or other of theſe two. La Hontan ſays, that the Algonkin is the learned language of Canada, as much eſteemed there as the Greek and Latin are in Europe *; and he has given us ſome account of it, but a very imperfect one. I have had occaſion to be better informed concerning it by the French Jeſuit I mentioned before, who had a much better opportunity of knowing it than the Baron Hontan; for he was ſeven years miſſionary among the Albinaquois, a nation of Indians, who ſpeak a dialect of this language, of which

* Vol. 2. p. 220.

he was perfectly maſter, as otherwiſe he could not have diſcharged the duty of his miſſion. What he told me of it was in ſubſtance as follows.

Although it be, as I have ſaid, a very artificial language, as will afterwards appear, it ſtill retains ſeveral marks of a primitive language, though much farther removed from the origin of the art than the other mother-tongue of North America, that being the language of the moſt antient people of North America, viz. the Hurons. For example, it has not that part of ſpeech we call an adjective, that is, a word denoting a *quality*, exiſting in an indefinite ſubject; but they ſupply it by the verb; as if, in Engliſh, I ſaid, Inſtead of *a wiſe man*, *a man who is wiſe*; or, to bring it nearer to the idiom of their language, as if, inſtead of ſaying in Latin, *vir ſapiens*, I ſhould ſay, *vir qui ſapit*.

2*do*, They have no word to expreſs the action ſimply and abſolutely; *ex. gr.* they have no word denoting the abſtract action of *doing*; but it muſt be doing ſome particular thing, or kind of thing. In like manner, they have no word to expreſs ſimply *going*; but they have one denoting *going by land*, and another expreſſing *going*

by water. And there is in all their verbs a diſtinction, which ſhall be afterwards explained, whether the ſubject of the action is definite or indefinite: So that the verb always comprehends in ſome ſort the ſubject, and never denotes the action ſimply and abſtractedly.

3*tio*, They have no poſſeſſive pronouns, but only a primitive one, which they likewiſe uſe for a poſſeſſive.

4*to*, They had not originally in their language any abſtract nouns, that is, ſubſtantives expreſſing abſtract qualities of ſubſtances, though they have now got ten ſuch words, as ſhall be afterwards explained

5*to*, They have not yet got ten words expreſſing abſtract relations, ſuch as *father* or *ſon*; but they have words which expreſs *my father*, or *my ſon*.

Theſe are the marks of rudeneſs and ſimplicity in their language. But the following ſhew a great deal of art and contrivance. For, In the firſt place, as to the ſound of their language, they have a great deal of variety, uſing all the letters we uſe, except only the *f* and the *v*, which none of the North-American languages uſe: Whereas the Huron, beſides wanting the *f*, has none of the labial conſonants. Then, they have ſeveral

aſpirates, and alſo long and ſhort ſyllables. And Mr Roubaud mentioned ſome words ſignifying different things, which are only diſtinguiſhed one from another by the length or ſhortneſs of the ſyllables. Further, the language is far from being harſh, or of unpleaſant ſound: But, on the contrary, is ſweet and flowing; for you very ſeldom find in it two conſonants together; and by eliſions, where it is neceſſary, they prevent the gaping of vowels upon one another.

With reſpect to the words conſidered as ſignificant, they uſe thoſe three great artifices of language which I have ſo often mentioned, viz. compoſition, derivation and inflection.

With reſpect to compoſition, they have as much of it as any other language, and by far the greater part of the words are compoſed of verbs and adverbs, (the adverb being a part of ſpeech much uſed by them), expreſſing in a very ingenious manner the nature of the thing ſignified. Derivation alſo is uſed by them as in other languages; and particularly they have a great number of derivatives from the third perſon ſingular of the preſent of the verbs, by which they ex-

preſs the abſtract action of the verb, as from *curro*, *curſus*.

As to inflection, they have more of it than any other language I have heard of. For not only in that way do they form the caſes of their nouns and the tenſes of their verbs, but they form verbs expreſſing ſo many different modifications of the action, that it is difficult to aſcertain the number and variety of them.

With reſpect to the caſes of their nouns, they have three formed by different inflections, viz. the nominative, accuſative, and ablative, if the noun be *noble*, that is, if it expreſs a *living thing*, or *what belongs to a living thing*: But if it be *ignoble*, that is, expreſſing an *inanimate thing*, it has only two caſes, a nominative and accuſative.

The verbs, in the firſt place, form their tenſes by inflection: I mean their preſent and their paſt; for, as to the future, they form it as we do, by auxiliaries, ſuch as *ſhall* and *will*. They have two forms of the perfect, both diſtinguiſhed by inflection; the one denoting, that they themſelves ſaw the action that is paſt, and that therefore it may be depended upon as certain; the other

expreſſing, that they have it only by report.

The voices and moods they form alſo by inflection; by which I would be underſtood to mean, an alteration of, or an addition to, the final ſyllable of the word.

As to the perſons of their verbs, they form two of them, viz. the firſt and ſecond, by prefixing to the verb the pronoun; but as there is only one other perſon, they ſay that needs no mark of diſtinction; and therefore they give you only the ſimple tenſe of the verb, without any thing prefixed. They have, like ſome other of thoſe barbarous languages which I have obſerved, two firſt perſons plural, diſtinguiſhed by inflection; the one including the perſon to whom the ſpeech is addreſſed, as when we ſay, *we are all men;* the other excluding him, as when an Engliſhman, ſpeaking to a Frenchman, ſays, *we Engliſhmen do ſo and ſo.* This in French is denoted by the expreſſion, *nous autres.*

But, beſides what is commonly expreſſed by inflection of verbs, the Albinaquois denote in that way the ſubject of the action, or the noun that is governed by the verb,

whether it be noble or ignoble, and alſo whether it be in the accuſative or the ablative; ſo that the verb is truly *declined*, as well as the noun, and agrees with the noun it governs, much in the ſame way that noun and adjective agree in the learned languages: And further, they expreſs by inflection a diſtinction not known in any other language that I am acquainted with, whether the ſubject of the action be a definite and particular thing, or an indefinite.

But, beſides all this, they expreſs by inflection of, or addition to the termination, the various modes of the action: And in this way they create derivative verbs almoſt without number. Thus, they have not only frequentative verbs, like thoſe of the Latin, and verbs which denote that the action is reflected upon the actor, ſomething like the Greek middle verbs; but they have verbs which denote the poſſibility of doing or ſuffering the action, in place of whom it is done, whether in my own place, in your place, or in the place of a third perſon; and, in like manner, for whoſe behoof, &c. And further, by the addition of a ſyllable, they expreſs whether the action is to be conſidered as a great action, or contrarywiſe; and whether as a ſad or doleful one; and, laſtly, they have

a derivative verb which expreſſes the negation of the action.

By this variety of expreſſion, the forms of their verbs become almoſt infinite; ſo that Monſ. Roubaud reckons, that, from a ſingle preſent of a verb, there may be ſome hundreds of different forms derived, and many more, if the verb be noble; and as the different forms are commonly expreſſed by addition of ſyllables, this makes their verb run out into a prodigious length of word. He gave me for example the verb *neteberdan*, which ſignifies, *I govern ſome indefinite thing;* and he ſhowed me more inflections and changes of that verb than I could well number, beſides very many more which he could upon recollection add. I obſerved, that in all thoſe changes the two ſyllables *te-ber* always remained invariable, and they were the only part of the verb that did ſo; from whence I was apt to conclude, that theſe ſyllables denoted the action of the verb abſolutely and ſimply. But he ſaid, there was no ſuch thing in the language, and that *te-ber*, though it may be called the theme or radical verb, had no ſignification at all by itſelf.

He aſſured me at the ſame time, that this almoſt infinite variety of their verbs was all according to the exacteſt rule and ſtricteſt analogy, without thoſe irregularities and anomalies to be obſerved even in our learned languages. And, if you once know the rules by which thoſe different verbs are formed, you may form as many of them as you have occaſion for with great facility. One day, in converſation with a ſavage of his miſſion, he obſerved to him the great order and regularity of his language, with which he ſeemed to be much ſurpriſed, as a thing he had never before attended to. He ſaid, the invention of a language appeared to him an extraordinary thing, and wondered who had invented his language. You Europeans, ſays he, have much more wit than we; but has any of you invented a language?

The women among them, as they are their hiſtorians, who preſerve the memory of their families and genealogies, ſo they may be alſo called the keepers or preſervers of their language: For they really underſtand ſo much of the grammatical art, that they not only know the rules of ſpeaking, but can render a reaſon for them; while the men are contented to learn from them the

practice, without troubling themſelves much about the reaſon for it.

Mr Roubaud obſerved, while he was among them, that the miſſionaries had made conſiderable alterations in their language, not only by giving them new names for things, but by introducing new forms of ſpeech; and particularly, that they had taught them to form from their verbs abſtract ſubſtantives; that is, ſubſtantives expreſſing the abſtract quality, ſuch as we form from our adjectives, as from *good*, *goodneſs*, and the like. And he ſuſpects, that they have learned in like manner from the miſſionaries to form verbal nouns, *i. e.* ſubſtantives expreſſing the action of the verb abſtractedly, as from *curro*, *curſus*; and his reaſon for thinking ſo is, that they do not uſe this way of ſpeaking in converſation among themſelves, but only with the miſſionaries. And this, and other alterations which the miſſionaries have introduced, makes the language they ſpeak with one another ſo different from what they ſpeak with the miſſionaries, that he was often at a loſs to underſtand them converſing with one another.

From this account of the language of the

Albinaquois I am diſpoſed to conjecture, that, in the progreſs of language, which I imagine has been very long, there has been invented a language too artificial, ſuch as this of the Albinaquois, and ſuch as it is ſaid the Armenian language is *, before a language of complete art was formed, which is always as ſimple as the nature of the thing will permit. Firſt, there was a language altogether rude and barbarous, ſuch as we have deſcribed; then was formed a language of art; but by very ſlow degrees, as we have alſo ſeen. Before the art was completed, there was an intermediate ſtage of a language, too intricate and complex in its ſtructure. And in this reſpect I imagine the invention of language reſembles the invention of machines. At firſt a machine is contrived very clumſy, and anſwering very ill the purpoſe for which it is intended; then art falls to work with it, and makes it better; but ſo complex, and with ſo many ſprings and movements, that it is not eaſily uſed. But art ſtill proceeding, and obſerving the defects and inconveniences, at laſt deviſes a

* See Dr Smith on the formation of languages, p. 452. where he ſays, that the Armenian language has no leſs than ten caſes.

way of ſimplifying the machine, and making it perform its operations with as few powers and movements as poſſible: And this is what I call the perfection of art. To this perfection the language of the Albinaquois is not yet arrived: But I cannot doubt, that if the Albinaquois were to cultivate arts and ſciences as much as the antient Greeks did, and among other arts the art of language, they would come at laſt to ſimplify their language, and make it perhaps as perfect as the Greek.

Before I conclude this chapter, it may not be improper to preſent to the reader the progreſs of the firſt operations of the human intellect, I mean abſtraction and generalization, as deducible from the progreſs of language. For, as I have obſerved, we can, in that progreſs, trace, with great certainty, the progreſs of the human mind. And, in the *firſt* place, the individual is generalized, as it exiſts in nature, the ſubſtance with its qualities, the action with its circumſtances. So that, at firſt, there will be no abſtraction, except of the moſt general attributes, ſuch as thoſe of time and place. For, without ſome previous abſtraction, as we have ſeen, there can be no generalization; and the perception

would be nothing but a perception of ſenſe. Then more qualities would be abſtracted from the ſubſtance, more circumſtances from the action; and the idea would then conſiſt of the ſubſtance, and its principal qualities, thoſe, at leaſt, which attracted the attention of the obſerver moſt; and of the action and its principal circumſtances. The idea of a *bear*, for example, would be taken off only with the qualities of ſize, ſtrength, or fierceneſs; and the idea of the action of *beating*, with the circumſtances of violent, or gentle, with or without effuſion of blood. The next ſtep, in this progreſs of the mind, is to diveſt the ſubſtance altogether of its qualities, the action of its circumſtances; and ſo form a ſeparate idea of each. And thus far the Hurons have gone. For they have generalized many ſubſtances by themſelves; and they have begun to generalize actions in the ſame manner. The next idea would be farther removed from the individual, and more the operation of the intellect: For it would repreſent ſomething that does not exiſt in nature, but is intirely the creature of the mind; I mean the idea of a genus, ſuch as that of animal or vegetable. And here too the Huron has begun to

make ſome progreſs: For tho' he have not come ſo far as the ideas I have mentioned, yet he has formed the notion of a *quadruped of the foreſt* and of a *tame quadruped.* And here ends the progreſs of the Huron; ſo that the further progreſs of the mind we muſt trace in other languages more perfect. And from theſe we diſcover, that the next ſtep of abſtraction and generalization is the idea of qualities ſtill inherent in ſome ſubſtance, but not in any particular or definite ſpecies of ſubſtance, but in ſubſtance in general. And this idea is expreſſed by a part of ſpeech well known by the name of adjective, but which is not to be found in the Huron, nor in any other barbarous language, that I know. The next ſtep we can alſo trace by the means of language, and it was to form an idea of the quality abſtracted from every ſubſtance, definite or indefinite. This idea is expreſſed by what the grammarians call an abſtract noun, denoting the quality *in abſtracto*, not *in concreto*, as it is denoted by the adjective. Of this kind are the nouns *goodneſs*, *juſtice*, *bravery* and the like. And that ſuch was the next ſtep, in order of time, is evident from this, that, in our language, in Greek, and

Latin, and, I believe, every language, the nouns of this kind are all derived from the correſponding adjectives; whereas, if the order of things had been followed, and not the progreſs of our minds, the etymology would have been juſt the reverſe: For the abſtracted quality is undoubtedly prior, in the order of nature, to the quality joined with any ſubſtance. And, accordingly, by philoſophical etymology, as I ſhall ſhew in another part of my work, *juſt* is to be conſidered as derived from *juſtice*, not *juſtice* from *juſt*.

The next ſtep, I imagine, would naturally be, to form ſeparate ideas of the ſeveral circumſtances of the time, place, and manner of action—of the perſons acting—whether the firſt, ſecond, or third perſon—the diſpoſitions of the mind of the ſpeaker with reſpect to the action—and, *laſtly*, whether the action was ſuffered, or done. By ſuch abſtractions and generalizations, were produced adverbs, conjugations of verbs, tenſes, moods, and voices.

The laſt part of this progreſs, that appears from the ſtructure of language, is the formation of ideas of the connections and dependencies of things upon one ano-

ther, and their relation to one another in reſpect of time, place, ſituation, cauſe and effect, and the like. From theſe ideas ariſe the declenſion and caſes of nouns, and thoſe parts of ſpeech we call prepoſitions and conjunctions. It is by ſuch words that the ſyntax of language is chiefly formed; and as ſyntax is the laſt thing perfected in language, it from thence appears, that thoſe abſtract ideas of relations are among the laſt formed by the human mind.

The progreſs, by theſe ſteps, I am perſuaded, has been very ſlow; for which it is not difficult to account, from the explanation I have given, in the beginning of this work, of the nature of abſtraction. For, being immerſed, as we have ſhewn, in matter and ſenſe, at our firſt entrance into this life, and perceiving only by the intervention of bodily organs; when we come to think in this new way, and which may be called unnatural, as it ſeparates what is in nature united, it is no wonder that we go on ſlowly, and with difficulty, abſtracting very little at firſt, then more; and ſtill going on from abſtraction to abſtraction, till at laſt we arrive at the ideas of higheſt abſtraction, which are of all others

the ſimpleſt, and in the order of nature firſt, but laſt in the order of our conceptions. Nor is it to be wondered that a very ſmall part of mankind are able to aſcend ſo high, when we conſider how far thoſe univerſals are removed from our original perceptions.

Thus it appears, that, from the ſtudy of language, if it be properly conducted, the hiſtory of the human mind is beſt learned, eſpecially in the firſt ſteps of its progreſs, of which it is impoſſible there can be any other record than what is preſerved in language.

CHAP. XI.

Several Queſtions concerning the firſt Languages.—What Words of them were firſt invented, or what Names of Things.—Whether they have any Radical Words.—Whether there be only one primitive Language.

IT may be aſked concerning thoſe primitive languages, What words in them were firſt invented? My anſwer is, That

if by *words* are meant what are commonly called *parts of ſpeech*, no words at all were firſt invented; but the firſt articulate ſounds that were formed denoted whole ſentences; and thoſe ſentences expreſſed ſome appetite, deſire, or inclination, relating either to the individual, or to the common buſineſs which I ſuppoſe muſt have been carrying on by a herd of ſavages, before language was invented. And in this way I believe language continued, perhaps for many ages, before *names* were invented *. For that the firſt articulate cries ex-

* And now I will give the explication I promiſed of the paſſage above quoted from Horace.

" Donec verba quibus voces ſenſuſque notarent,
" Nominaque invenêre."——

Where Horace makes a diſtinction betwixt *verba* and *nomina*, which has not been explained by any commentator, that I know; but which, if rightly underſtood, agrees perfectly with my ſyſtem; for by *verba* he means, as I underſtand him, thoſe articulate ſounds expreſſing only appetites and deſires; and this I think he has ſufficiently explained himſelf by the deſcription he has given of them,—*quibus voces ſenſuſque notarent:* Importing, that the firſt words marked the inarticulate cries formerly uſed, which I underſtand to be meant by *voces*, and by conſequence the inclinations and feelings of the mind expreſſed by thoſe cries, which I take to be the meaning of the word *ſenſus:* For that word in Latin does not denote *ideas*, or the operations of the intellect, but the movements of that part of our mind which is

preſſed the names of things, I can no more believe than that the neighing of a horſe, or the lowing of a cow, is a name for any thing.

If it be further aſked, What names were firſt invented? My anſwer is, The names of the objects that they were moſt converſant with, and had moſt frequent occaſion to name. Thus we ſee the Hurons firſt gave

the ſeat of deſire and inclination, and is called by the Greek philoſophers the *Orectic*, (το ορεκτικον). So it is uſed by Cicero, *lib.* 3. *de oratore cap.* 25.; where he ſpeaks of the *ſenſus et dolores, quos habet oratio.* And every where in his writings, ſo far as I obſerve, *ſenſus animi*, or *ſenſus* ſimply, denote always the affections, inclinations, or what we commonly call the feelings of the mind. And it was uſed in this ſenſe, by a very natural metaphor, from the ſenſes of the body, which are denoted by *ſenſus* in its proper ſignification; as Quintilian has obſerved, *lib.* 8. *cap.* 5. *initio.* It is true, that Quintilian, in this paſſage, tells us, that the uſe of the word, in his time, was extended to ſignify all the conceptions of the mind—*ſed conſuetudo jam tenuit, ut mente concepta ſenſus vocaremus.* But this uſe of the word certainly did not obtain in the days of Cicero, nor, I preſume, when Horace wrote, which could not be long after Cicero's death. If the words be underſtood in this ſenſe, (and I do not ſee in what other they can be underſtood), Horace very properly places the *verba* firſt, as being undoubtedly firſt invented; and then the *nomina*, which came next in order, and which certainly ſignify the names of things, not whole ſentences expreſſing ſome deſire or volition.

names to trees, and to thoſe animals that they hunted or tamed.

It is an ingenious conjecture of the author before quoted *, and I think a very probable one, that the firſt names of objects were proper names denoting the individual; but afterwards, by being applied to objects of the ſame kind, on account of their reſemblance, they became general names of the ſpecies. For the natural progreſs of the human mind, with which language always keeps pace, is from individuals to generals; and therefore, as individuals muſt neceſſarily have been firſt known, it is likely that they were firſt named.

The radical words in a formed language may be ſaid, in one ſenſe, to be the firſt words of the language, and accordingly are called *primitives*. But ſuch words are far from being the firſt invented words: For the barbarous languages having no compoſition or derivation, can have no roots; but they belong only to artificial languages, and are the invention of the grammatical art, to make the words of a language connect and

* Dr Smith on the formation of language, in the beginning.

hang together, and to ſave the too great multiplication of them, as ſhall be afterwards ſhewn. And, in general, it is in vain to ſeek for any thing like art in the truly primitive languages; which being produced by the neceſſities of life, and uſed only to ſerve the purpoſe of thoſe neceſſities, had at firſt no rule or analogy of any kind: So that, whatever we find like art or regularity in them, we are ſure is an improvement of the original jargon.

There is another queſtion concerning language that has been much agitated, namely, Which is the truly primitive language from whence all the others are derived? But firſt I think it ought to be determined, whether there be any one primitive language. Upon the ſuppoſition indeed, that language could not have been invented by man, but was revealed from heaven, it is evident, that this revealed language is the only primitive one, and that all the other languages of the world are only dialects of it, more or leſs pure. And then the queſtion will be, Whether that firſt language is yet extant? or, if it be loſt, What language now remaining comes the neareſt to it? But, on the other hand, ſuppoſing language to be

the invention of man, (and it is upon that ſuppoſition I proceed), I ſee no reaſon to believe, that it was invented only by one nation, and in one part of the earth; and that all the many different languages ſpoken in Europe, Aſia, Africa, America, and the new world that we have now diſcovered in the South ſea, are derived all from this common parent. And, accordingly, I have all along ſpoken, not of one primitive language, but of primitive languages in general. At the ſame time, I am far from being of opinion, that every nation has invented the language it uſes: On the contrary, I am perſuaded, that ſo difficult an art as language has not been the invention of many nations; but having been once invented, and being by its nature of long duration, as well as eaſy communication, it has been propagated to countries very diſtant from thoſe where it was firſt invented. But the duration and propagation of language is a curious ſubject, which deſerves to be conſidered and explained at ſome length; after which, we ſhall be better able to judge whether one language could be ſpread all over the face of the earth.

CHAP. XII.

Of the Duration of Language, and the Facility of its Propagation.—Of the Celtic, and the great Extent of Country over which it is ſpread.—Of the Teutonic, and its Propagation.—Of the Greek and Latin, and their Connection with the Teutonic.—That the Latin is the ſame Language with the antient Pelaſgic; and of the Affinity betwixt the Latin and Hebrew;—alſo betwixt the Latin and Hetruſcan.

AS language is among the firſt arts invented by men, ſo it is among the laſt that are loſt. It cannot be totally and at once loſt, except by the total deſtruction of the nation, either by ſome natural calamity, like that of the Atlantic iſland ſinking, as it is ſaid, into the ſea, or by the extirpation of war. In this laſt way the Celtic language was loſt in England, when it was conquered by the Saxons, and was preſerved only in the

mountains of Wales, which were not conquered by them. But, in the caſe of moſt other conqueſts, the language of a country has not been totally loſt, but mixed with that of the conquerors; and out of that mixture a corrupt language produced. This was the caſe of the conqueſt of the ſeveral provinces of the Roman empire by the northern nations. In Italy, for example, the language that took place after it was ſubdued by the Lombards, was a mixture of Latin and the language of that people, which is the preſent Italian. In France, after the conqueſt of the Franks, the Language was mixed of Latin, of Tudeſque, or Teutonic, which was the language of the Franks, and of what ſtill remained of the antient language of the country, viz. the Celtic; and of thoſe three languages the modern French is compoſed *, but principally of Latin.

But it has ſometimes happened, that the conquered retained their language entire, and that even the conquerors adopted it. This was the caſe when the conquered nation was much more numerous than the

* See *Monſ. Bullet*'s preface to his Celtic Dictionary.

conquerors. For example, when the Normans conquered England; as they did not, like the Saxons, extirpate the people, and as they were but a ſmall number, compared with the body of the Engliſh nation, Engliſh continued to be the language of the country, notwithſtanding that the Norman was the language of the court and of the law, and that the Normans, for many years after the conqueſt, were poſſeſſed of all the great baronies, and held all the offices of dignity and truſt in the kingdom; yet, under all thoſe diſadvantages, the Engliſh language ſtood its ground, and at laſt prevailed over the Norman, and came to be the general language of the country. In like manner, and for the ſame reaſon, the Tartars, tho' they have conquered China thrice, and are now, and have been for many years, in poſſeſſion of it, have not eſtabliſhed their language there; but, on the contrary, the Chineſe is not only the language of the country, but even of the court, and of all kinds of public buſineſs. The Romans likewiſe, when they conquered Greece, did not make their language triumph there as well as their arms; not only for the reaſon I have mentioned, viz. the ſmallneſs of their

numbers, but for another reaſon, as I imagine, namely, the greater excellency of the Greek tongue, which made it in time prevail even over the language of their conquerors. This happened after the ſeat of the empire was removed to Conſtantinople: For, though Latin continued to be the language of the court at Conſtantinople, and was the language of the law for more than two hundred years after, down to the time of Juſtinian the Emperor, who compiled a great body of law in that language, which is the Roman law that we uſe at this day; yet the Greek at laſt prevailed, inſomuch that, within leſs than a hundred years after Juſtinian, they were obliged to tranſlate his collection into Greek *. And when Conſtantinople was taken by the Turks, the Latin was as much loſt in the Eaſtern empire, as the Greek was in the Weſt.

For the reaſon laſt mentioned, the very reverſe has happened in ſome inſtances, (ſuch is the variety of human affairs in the matter of language, as well as in every thing

* This tranſlation is what is called the *Baſilica*; and has been much uſed by *Cujatius*, and other learned lawyers, in explaining and correcting Juſtinian's collection.

elſe); and the language of the conquerors, though few in number, has become the language of the conquered nation. Thus, when the Incas of Peru conquered the ſeveral provinces of that country, they introduced, with their other arts, their language, which the people learned, inſtead of the barbarous jargon that they ſpoke before *; and the ſame, I am perſuaded, was the caſe of the barbarous inhabitants of Greece when they were conquered, or rather tamed and civilized, by the Pelaſgi.—But of this I will ſpeak more hereafter. The Romans too endeavoured to make their language univerſal through the whole *orbis Romanus*; and, in ſome of the provinces, particularly in Gaul, they did make the Latin the prevailing language. But ſtill the Celtic continued to be ſpoken, at leaſt among the lower ſort of people: and it is for this reaſon that, as I have juſt now obſerved, the French has at this day ſome Celtic in its compoſition.

And not only is language the longeſt lived of all the arts of men, but it may be ſaid

* *Garcilaſſo de la Vega*'s Royal Commentaries of Peru, *lib.* 7. *c.* 1. *p.* 249.; *c.* 3. *p.* 253. *et ſeqq.*

to live even after its death: For by the writing-art languages have been preſerved many hundred years after they ceaſed to be living. In this way the learned languages of Greek and Latin continue ſtill to be the admiration and delight of the ſcholar; and the Hebrew, which has ceaſed to be ſpoken theſe two thouſand years, (for it appears to me that the genuine Hebrew was loſt among the Jews as a living language during the Babyloniſh captivity), is ſtill to be underſtood. And what is yet more extraordinary, ſome languages, even without literary monuments, have been preſerved in the countries where they were ſpoken, long after they ceaſed to be ſpoken. This happens by the names of places; for in this way the Celtic is preſerved, both in France and Spain, without any written monuments: And indeed there are very few ſuch monuments of that language to be found any where. As language therefore is the moſt laſting of all the memorials of men; ſo, of language itſelf, the names of places are what laſt the longeſt.

Another obſervation that I will here make concerning language is, that it is not only moſt permanent and durable, but it is one of

thoſe arts which men eaſily carry about with them, and perhaps is that of all others which is the moſt eaſily communicated, eſpecially to thoſe who have been in the uſe of ſpeaking any other language; for to a mute ſavage it would, I believe, be of very difficult communication. It is by this property of language that the ſame languages have been propagated to ſo many parts of this earth: For where-ever the people who ſpoke them went, there alſo the language would go. Now, as in the early ages of the world the migrations of nations, or of colonies from them, were very frequent, it happened in that way that languages were very far ſpread: So that there is nothing more certain, than that every country has not invented a language for itſelf; but, on the contrary, there is the greateſt reaſon, as I have ſaid, to believe, that language has been the invention but of few countries, and that from thoſe countries it has been propagated to many others. It is of this propagation of language that I am now to ſpeak; and I will begin with the language of the Celts, who certainly, if not the moſt antient, were among the moſt antient inhabitants of Europe.

The Celtic, if I can believe the accounts I have heard of it, is ſpread over a great part of the world, and is to be found in places ſo remote from one another, as ſhews, that there muſt have been a moſt extraordinary intercourſe and communication among men in antient times. The French Jeſuit above mentioned, from whom I got my information concerning the language of the Albinaquois, told me as a fact which he himſelf could atteſt, that one of his miſſion having loſt his way in the woods, and ſtrolled into the country of the Eſquimaux, ſtaid long enough there to learn the language of that people; after which he came back again to his countrymen; and happening one day to go aboard a French ſhip at Quebec, he found there among the ſailors a *Baſque*, that is, a native of the country at the foot of the Pyrenean mountains on the ſide of France, whom, by his knowledge of the Eſquimaux language, he underſtood very well, and the Baſque likewiſe underſtood him, ſo that they converſed together. Now the language that the Baſques ſpeak is undoubtedly a dialect of the Celtic *; and it is now diſcovered,

* This is a fact diſputed by ſome; and there is a Spaniſh dictionary and grammar of the Biſcayan lan-

that the Eſquimaux language is the ſame which is ſpoken by the natives of Greenland. So it appears, that the Celtic was not only the antient language of France, Spain, Britain, and Ireland, but that it has ſpread itſelf over the northern parts of Europe and America.

And further, with reſpect to this language, I am informed by a gentleman from the highlands of Scotland, who was ſome years

guage, which is a dialect of the Baſque ſpoken on the other ſide of the Pyrennees: And from this grammar and dictionary it appears, as it is ſaid, that there is no connection betwixt it and that dialect of the Celtic ſpoken in the highlands of Scotland, commonly called *the Gaelic* or *Erſe*. On the other hand, I am credibly informed, that a Welch gentleman, of the name of Williams, who was ſome time in the country of the Baſques, ſays, that, at firſt, indeed he did not underſtand their language; but, when he had been ſome time among them, he diſcovered that the difference betwixt it and the Welch was in the pronunciation, more than in the words; ſo that he came ſoon to underſtand them, and they him. It is, however, probable, that, if he had only ſeen the words in a grammar or dictionary, written in the letters to be founded after the Spaniſh faſhion, he would hardly have diſcovered any affinity. Beſides this, there is a curious fact, related by Lhoyd in his Archæologia, that the names for numbers, in the Biſcayan language, are the names of the fingers in Welch. So that the name of the *thumb* ſtands for *one*; the name of the *forefinger*, for *two*, &c.

in Florida in a public character, that the language of the natives there has a great affinity with that dialect of the Celtic which is ſpoken in thoſe highlands; and particularly, that their form of ſalutation, by which they aſk you, *Are you well?* is the very ſame *.

* It ſeems very extraordinary how the Celtic language ſhould have found its way from Europe, or the north-moſt part of America, to a country ſo very remote as Florida, through ſo many nations, who, as far as we know, ſpeak languages altogether different. But there is a fact related by one *Herbert*, a Welchman, that will account for it. This Herbert was a great traveller in the laſt century, and has publiſhed a book of travels, in which he has taken occaſion to relate, that a diſpute having happened about the ſucceſſion of the kingdom of Wales in the twelfth century, the party that was worſted, with their prince at their head, imbarked, and went in ſearch of a country where they might live quietly; and having directed their courſe weſtward, after a long navigation, they landed ſomewhere in the gulf of Mexico, and made a ſettlement there. After which a part of them having returned to Wales, came back again with more ſhips, and a greater number of men, in order to reinforce the colony, which had been much weakened by the attacks of the natives. This, our author ſays, is recorded by ſeveral Welſh hiſtorians; and he ſpeaks of it as a fact that cannot be conteſted. And indeed the truth of it is ſtrongly ſupported by the affinity which the gentleman above mentioned obſerved betwixt the language of Florida and the Celtic,

rope: And they appear to me to have been conveyed and propagated in two ſeveral ways, and by two ſeveral nations; by the Phoenicians by ſea, and the Pelaſgi by land. Of theſe laſt, and of their intercourſe

ed himſelf very much to the ſtudy of their geometry and aſtronomy. He tells us, *lib.* 7. *de leg. pag.* 900. *edit. Ficini*, that the Egyptians knew a thing, relating to the principles of geometry, which the Greeks, even in his time, did not generally know, and which, from what he ſays, I ſhould imagine he only, and perhaps likewiſe Eudoxus, who was with him in Egypt ſtudying geometry, knew, tho' the ignorance of it was, he ſays, ſhameful, and not human, but brutiſh, or *ſwiniſh*, as he expreſſes it, πάθος ἐκ ἀνθρώπινον, ἀλλ ὑηνων τινων μᾶλλον θρεμμάτων. It was an ignorance, ſays he, that made me bluſh, not only for myſelf, but for all my countrymen. And what is this ſo ſhameful ignorance? I doubt it is that of every man, who has not very accurately ſtudied geometry, and underſtands, what may be called the metaphyſical principles of it. And I very much ſuſpect, that we ſhould not at this day have known it, if Plato had not brought it with him from Egypt, and Euclid publiſhed it in his elements. The queſtion is concerning the nature of a thing, which runs through geometry and arithmetic, and all ſciences of quantity, I mean *ratio*, whether it can exiſt betwixt magnitudes of different kinds, ſuch as length and breadth, compared with one another, or either of them, with depth. The Greeks in Plato's time believed that it might. But the Egyptians taught them better. And accordingly, Euclid has defined ratio, to be "the relation of two magnitudes of the *ſame kind*,

with Egypt, I have ſaid ſomething already, and ſhall preſently ſay more. And as to the Phoenicians, they once dwelt upon the

" to one another with reſpect to quantity," λογος εστι δυο μεγεθων ὁμογενων η κατα πηλικοτητα προς αλληλα ποια σχεσις; *Def.* 3. *lib.* 5. Plato, in the ſequel of this paſſage, plainly enough inſinuates, that the doctrine of incommenſurables was known to the Egyptians, but not known to many of the Greeks in his time.

That all the Greeks were not ſo candid and ingenuous as Plato, but that many of them aſſumed the merit of inventing what they brought with them from Egypt, is a fact that cannot be controverted. Herodotus, when he tells us, that the doctrine of the tranſmigration of ſouls was an Egyptian doctrine, ſays, at the ſame time, that certain Greeks pretended it was their own, whoſe names, ſays he, tho' I know, I will not mention; *lib.* 2. *cap.* 123. I am unwilling to believe, that ſo great a philoſopher as Pythagoras was capable of ſuch a deceit. But it is well known, that his followers aſcribed to him the invention of every thing that he taught them, tho' I doubt much, for my own part, whether he really invented any thing of any value. We are told by Simplicius, in his commentary on the firſt book of Ariſtotle's phyſics, that the Pythagoreans knew a method of ſquaring the circle, that is, as I underſtand it, of coming as near to it as is neceſſary for any practical uſe. Now, I think it is highly probable, that this was not invented either by Pythagoras or any of his followers, but that he learned it from his maſters, the Egyptian prieſts. And if they knew this, how ridiculous is it to ſuppoſe, that they did not know that the ſquare of the hypotenuſe in a right-angled triangle, is equal to the ſquares of the ſides containing the right angle!

Red ſea, as Herodotus informs us, nearer to the Egyptians; and, if they were not a colony of theirs, had certainly a cloſe intercourſe with them, in conſequence of which they learned to circumciſe themſelves, as the ſame author tells us *. And it appears they were ſo much connected with them as to be admitted to a participation of their religion and worſhip: For we are told likewiſe by Herodotus †, that they carried upon the prows of their gallies an image of the god Vulcan, ſuch as that which the Egyptians worſhipped in the *adyta* of their temples.

Theſe things being premiſed, we are now to inquire, Whether the art of language, as well as other arts, may not have come to the Weſtern world from Egypt? And whether that language, which I have ſhewn was univerſal over Europe, and a great part of Aſia, was not originally the language of Egypt?

If ſuch was the caſe, the nations who ſpoke this language muſt have had, ſome way or other, a communication with Egypt; and all or moſt of them had that communication, if we can believe the hiſtory of the

* *Lib.* 2. *c.* 104.

† *Lib.* 3. *c.* 37.

Egyptians, of which Herodotus has given us ſo exact an account. For, not to mention the conqueſts of their god Oſiris, their king Seſoſtris traverſed, with a great army, almoſt all the world that was then known, and left monuments of himſelf in ſeveral countries, ſome of which were ſtill remaining in the days of Herodotus. Among other monuments, it is likely, he left his language in ſeveral places, as he certainly did in Colchis, where he left a colony, who, at the time Herodotus wrote, lived according to the manners of the Egyptians *, and ſpoke their language. And, if it be further true, that they planted a colony, not only there, but in many other parts of the world, as Diodorus informs us they pretended, in that way we can account for all the languages I have mentioned being dialects of the Egyptian: For that the Egyptians learned their language from any of thoſe other nations, there is not, I think, the leaſt proof or probability.

But, if we ſhould diſbelieve every thing that the Egyptians have ſaid of themſelves, it is impoſſible that we can reject what the

* *Lib.* 2. *c.* 104. *et ſeqq.*

Greeks have told us of their intercourſe with that nation, unleſs we have a mind to reject at the ſame time all antient hiſtory. Now, according to the Greek accounts, they had a communication with Egypt, not only by the means of Greek travellers into that country, in which way I do not think their language was brought into Greece; but chiefly by the means of ſtrangers from that country, who came and ſettled in Greece, and became governing perſons, and founders of ſtates there. Of this kind I hold Deucalion to have been, and Inachus the firſt king in Greece, as Danaus and Cecrops certainly were; and likewiſe Cadmus, who, though he came into Greece immediately from Phoenicia, was originally from Egypt. But, beſides thoſe patriarchs of the Greeks, as I may call them, it appears to me, that the Pelaſgi, the firſt civilizers of Greece, and whoſe language I think I have proved was the origin of the Greek language, were either ſome colony of the Egyptians, or, by intercourſe with them, had learned, not only their religion and arts, but their language.

It is certain that the Pelaſgi were the firſt civilizers of Greece; and I think I have

ſhewn, that, among other arts which they brought into Greece, they introduced their language. Further, it is evident, that they came from Aſia; and as to their intercourſe with Egypt, we are told by Herodotus, that they brought into Greece from Egypt the names of the gods. And if Herodotus had not told us ſo, from what other country than Egypt could they have brought the gods of Egypt? And it further appears, that they not only knew the popular religion of the country, but were initiated into their myſteries: For it was from Egypt that they brought the Samothracian myſteries, the moſt antient and moſt reſpectable of all the Greek myſteries. Theſe myſteries were in honour of the Cabiri *, moſt venerable deities of Egypt, into whoſe temple none was permitted to enter but the prieſt †. The concluſion that I draw from theſe facts is, that the Pelaſgi were either one of the many colonies that came out of Egypt, or were ſo intimately connected with the Egyptians as to have learned their language, as well as their religion and arts.

* *Herodot. lib.* 2. *c.* 51.

† *Ibid. lib.* 3. *c.* 37.

This concluſion, I think, muſt appear extremely probable, eſpecially as it is not contradicted by any antient author; for none of them has ſaid any thing concerning the origin of the Pelaſgi. But the evidence becomes much ſtronger, and indeed amounts to a proof as clear as can be expected in matters of ſuch remote antiquity, if we attend to what Herodotus has ſaid, That the Dorians were Pelaſgi; and that the leaders of the Dorians were from Egypt *. Now what language can we ſuppoſe thoſe Egyptians leaders to have ſpoken other than the Egyptian? And is it to be believed, that the Dorians ſpoke a different language from their leaders? For, ſuppoſe they had ſpoken a different language when thoſe leaders came among them, it is natural to think, that the ſame thing would have happened to the Dorians, as Herodotus tells us happened to the Athenians when the Pelaſgi governed Athens, namely, that they would adopt the language of their governors. And as to the later Egyptian ſtrangers, ſuch as Danaus or Cadmus, that came into Greece after the Pelaſgi

* *Herodot. lib. 6. cap. 53.*

were eſtabliſhed there, they muſt have underſtood, and been able to ſpeak, the language of the country; otherwiſe, I think, it is impoſſible that they could have got ſuch an aſcendency over the people as to become kings and rulers among them, not by force, which it is certain they did not uſe, but by perſuaſion *.

Thus, I think, I have proved, that one race of the Greeks, viz. the Dorians, ſpoke a dialect of the Egyptian language. But what ſhall we ſay of the other race, the Ionians, whom only Herodotus will allow to be the true Hellens or Greeks? I ſay, in the *firſt* place, that the Doric, and Attic, or Ionic, are clearly dialects of the ſame language; ſo that, if we admit the Doric to be Egyptian, it is impoſſible we can deny the Attic to be ſo likewiſe. And as to the notion of the Pelaſgi or Dorians having changed their language after they came into Greece, and adopted the language of the people whom they governed, I have endeavoured to ſhew, that it is without foundation, and contrary to all probability. But,

* See this argument very well handled by Squire, in his Inquiry, which I quoted before, into the origin of the Greek language, *ſect.* 3. *p.* 173.

2*dly*, Suppoſe we ſhould admit this to have happened, however improbable, and that the Attic or Ionic is the true original Greek language which the Pelaſgi learned after they came into Greece; I ſay, that the language of Athens, the principal city of the Ionians, was originally Egyptian; becauſe the Athenians were an Egyptian colony. This is a curious fact of antient hiſtory, not commonly known; and as it belongs to our ſubject, I will ſtate the evidence of it at ſome length: In doing which I am aſſiſted by a French diſſertation on the ſubject, lately publiſhed by the ſociety of antiquaries in London.

And, in the *firſt* place, if we can believe the Egyptians themſelves, there is no doubt of the matter. For, as Diodorus Siculus informs us *, among many other colonies which they pretended to have ſettled in different parts of the world, they ſaid the city of Athens was one; and they were ſo particular as to name the *nome* or diſtrict in Egypt from whence this colony came, viz. the diſtrict of *Saïs*. And accordingly Plato tells us †, that the Saïtes conſidered the A-

* *Lib.* 1. *cap.* 28. *edit. Weſſeling.*

† *Tom.* 3. *p.* 21. *edit. Serrani.*

thenians as related to them; and on that account treated Solon with great kindneſs when he came among them, and inſtructed him in antient hiſtory; telling him, among other things, the ſtory of the Atlantic iſland, which Plato has related in the *Timaeus*. The Egyptians further, according to Diodorus *, ſaid, that Erechtheus, who is commonly reckoned the ſixth King of Athens, was an Egyptian; and did, on account of that relation of the Athenians to the Egyptians, import into Attica, from Egypt, a quantity of corn in a time of great drought, which had produced a famine in Attica; and for this ſervice was made king of the country. This account of Erechtheus muſt be allowed to be at leaſt more credible, than the ſtory which the Greeks told of him, that he ſprung out of the earth †; and was ſo far confirmed by the Athenians themſelves, as the ſame Diodorus tells us, that they admitted there was a great ſcarcity of corn in Attica in the reign of Erechtheus, and that then Ceres came among them, and gave them corn; the meaning of which fable, the Egyptians ſaid, was,

* *Ubi ſupra.*

† *Herodot. lib.* 8. *cap.* 55. Εστιν εν τῃ ακροπολι ταυτῃ Ερεχθεως του γεγηνεος λεγομενου ειναι νηος.

that Erechtheus, along with the corn, brought with him from Egypt the myſteries of that goddeſs, and eſtabliſhed them in Eleuſis in Attica, from whence they were called the *Eleuſinian myſteries.* Now, if it be admitted, that there was at that time an importation of corn into Attica, I think it could hardly be from any other country than Egypt, which, by its nature, could not ſuffer famine from the want of rain, the cauſe, as it is ſaid, of the famine at that time in Attica, and, as Diodorus tells us, in almoſt every part of the known world, except Egypt. It muſt therefore, I think, be allowed, that the Egyptian ſtory is at leaſt a probable one, and agreeable to what the Athenians themſelves relate.

Further, that the Athenians were a colony of the Saïtes, was the opinion of Theopompus, a very learned Greek hiſtorian, whoſe diligence, and the expence as well as the pains he was at to inform himſelf of facts, and particularly concerning the origin of nations and cities, Dionyſius the Halicarnaſſian very much commends *. The work of Theopompus is loſt; but the fact is re-

* *Dionyſ. Halicarn. Epiſtol, ad Pomp. de Hiſtoricis, p.* 131.

lated by Euſebius, in his *Praeparatio Evangelica, lib.* 10. *cap.* 10. *p.* 491.; and alſo by Proclus the philoſopher, in his commentary upon the *Timaeus* of Plato, *p.* 30.; who informs us, at the ſame time, that Calliſthenes and Phanodemus averred the contrary of this, viz. That the Saïtes were a colony of the Athenians; and he mentions Atticus, a Platonic philoſopher of later times, who ſays, that Theopompus, through envy, inverted the ſtory. And he adds, that in Atticus's time there came certain perſons from Saïs to Athens to renew their relation and connection with the Athenians †.

From all theſe accounts, one thing appears to be evident, that there was a connection betwixt the Saïtes and Athenians, and that either the Saïtes were a colony of the Athenians, or the Athenians of the Saïtes. Now, I think the learned reader

† As this work of Proclus is not in the hands of every body, I have excerpted the paſſage, which runs thus: — Τους δε Αθηναιους Καλλισθενης μεν και Φανοδημος πατερας των Σαιτων ιστορουσι γενεσθαι. Θεοπομπος δε αναπαλιν εποικους [*leg.* αποικους] αυτων ειναι φησιν. Αττικος ὁ Πλατωνικος, δια Βασκανιαν, φησι, μεταποιησαι την ιστοριαν τον Θεοπομπον· επ' αυτου γαρ αφικεσθαι τινας εκ της Σαιως ανανεουμενους την προς Αθηναιους συγγενειαν.

cannot heſitate a moment in chuſing which of theſe alternatives he ſhould believe: For, though it be certain, that the Egyptians ſent out many colonies, and particularly that many Egyptians came into Greece, there is not the leaſt proof or probability, that any colony ever came from Greece into Egypt, nor indeed from any other country in the world, ſo far as we know, except from Ethiopia, which I hold to have been the parent-country of the Egyptians, who, coming from thence, firſt inhabited the *Thebais*, or Upper Egypt, and then ſpread themſelves over the *Delta*, after that country was formed by the river.

Further ſtill, not only does it thus appear in general, that the Athenians were a colony of the Saïtes, but I think we know particularly, at what time, and by whom this colony was ſettled in Athens. For it appears to me, that the colony was led by Cecrops, the firſt king of Athens, ſome time after the Ogygian deluge, which had deſolated Attica. Whether this deluge was the ſame with that of which Solon was informed by the old Egyptian prieſt of Saïs, and which, at the ſame time that it deſtroyed Attica, overwhelmed the Atlantic iſ-

land *, or whether it was another, poſterior to this, I pretend not to determine.

That this firſt Athenian king was an Egyptian, is a fact that I think inconteſtable †; though the Athenian mythologiſts made *him* likewiſe the offspring of the earth ‡. And it appears alſo certain, that he came from Saïs in Egypt §. And that he came after the Ogygian deluge, and found Attica inhabited by men, who lived in a ſtate of the greateſt barbarity, copulating promiſcouſly like beaſts, appears alſo to be cer-

* See Plato *in Timaeo, tom.* 3. *p.* 21. *Serrani.*

† See *Johannes Tzetzes, Iliad.* 5. *cap.* 18.—*Suidas in voce* CECROPS.—*Scholiaſt. in Plutum Ariſtophanis.*—*Iſaacus Tzetzes ad Lycophron.*—And *Cedrenus Compend. Hiſtoriarum.*

‡ *Appolodor. Bibliothec. lib.* 3. This was a common fable among the Greeks, invented either to conceal their ignorance, or to diſguiſe the true origin of their nation, and to make the world believe that they were the produce of the country which they inhabited. This, we know, was in particular the vanity of the Athenians, who conſidered all the other inhabitants of Greece as foreigners in the country where they lived, and themſelves only as *indigenae*, and truly natives. Upon this topic their orators never failed to expatiate in the funeral orations which they pronounced upon thoſe of the Athenians who fell in war. See what Plato has ſaid upon this ſubject in his Λοϛος ϵπιταφιος, in the *Menexenus.*

§ *Joh. Tzetz. loco ſupra citato.*

tain †: For it is agreed, that he firſt inſtituted marriage among the Athenians; and for this reaſon he is diſtinguiſhed by the epithet διφυης, as Tzetzes has very well explained the word in his various hiſtory ‡. The caſe appears to have been, that the country of Attica having been quite deſolated by the Ogygian deluge at the time that Cecrops arrived with his colony from Saïs, which it is computed was a hundred and eighty-nine years after that deluge, according to Africanus's chronology, as quoted by Euſebius, was then inhabited by ſavages, who lived without government, arts, or civility; and who therefore muſt be ſuppoſed to have learned every art of life from Cecrops and his followers; and, among other arts, that of language.

Diodorus, though his vanity as a Greek made him unwilling to believe that the principal city of Greece was an Egyptian

† *Euſeb. Chron. et praep. Evangel.*

‡ *Johannes Tzetz. Iliad.* 5. *cap.* 18.; where he tells us, that, before Cecrops, the mothers of children were only known; ſo that the children were μονοφυεις: Whereas, after the inſtitution of marriage, both parents being known, they became διφυεις. And in this account of the name, Athenaeus, *lib.* 13. and Juſtin the hiſtorian, *lib.* 2. *cap.* 6. agree with Tzetzes.

colony; yet, as a faithful hiſtorian, he has fairly given us the arguments which the Egyptians uſed to convince the Greeks of the truth of the fact. They ſaid, that there was a great conformity betwixt the religious and civil inſtitutions of the people of Saïs, and thoſe of the Athenians. And, among other particulars, he mentions the diviſion of the people of both cities into three Claſſes of the ſame kind *.

But, among other arguments, they uſed one which appears to me moſt convincing in matters of ſuch remote antiquity, becauſe it is drawn from the moſt antient of all the monuments of men, I mean the names of places. For the Egyptians ſaid, that the colony came from a town in the diſtrict of Saïs, called *Aſty* †; and this name

* *Diodor. lib.* 1. *cap.* 28. *edit. Weſſeling.*

† The words of Diodorus are, Και τους Αθηναιους φασιν (Αιγυπτιοι) αποικους ειναι Σαιτων των εξ Αιγυπτου και πειρωνται της οικειοτητος ταυτης φερειν αποδειξεις· παρα μονοις γαρ των Ελληνων την πολιν ΑΣΤΥ καλεισθαι μετενηνεγμενης της προσηγοριας απο του παρ' αυτοις ασεως, *lib.* 1. *cap.* 28. Of theſe laſt words, it may be thought the meaning is, that ασυ was another name for the city of Saïs. But, though that interpretation would equally ſerve my purpoſe, I hold the proper meaning of the words to be, that the name of αστυ given to Athens *was tranſferred from*

they gave to the city that they founded in Greece. In ſupport of this argument, they ſaid, what no doubt was true, that the Athenians were the only people in Greece who gave that name to their city*: For the word ἄστυ is not the general name for a city in Greek, except among the poets, but a name peculiar to the city of Athens, and no doubt a foreign word, which the Athenians preſerved without altering it, or giving it the uſual Greek termination. For Ariſtotle has told us †, that there are only five nouns in Greek which terminate in this vowel υ, of which ἄστυ is one; and I am perſuaded they are all foreign words, that had not been naturalized by getting a Greek termination.

the ἄστυ among them, as it may be literally rendered: An expreſſion which ſo clear a writer as Diodorus would not have uſed, if he had meant to ſay, either that ἄστυ was a general name for a city in the Egyptian language, or that this city of Saïs, beſides that name, was likewiſe called ἄστυ. The meaning therefore of the paſſage clearly is, that as there was a diſtrict of the name of *Saïs*, as well as a city, (ſee Plato *in Timaeo*), ἄστυ was the name of ſome other city or village in that diſtrict, from which this Athenian colony came.

* Not only the Athenians themſelves called their city by that name, but alſo the Latin writers. See *Corn. Nepos, Themiſtocl. cap.* 4. & *Terent. Eunuch. &c.*

† *Ariſtot. Poëtic. cap.* 21. *in fine.*

But, beſides all theſe arguments, there is one that ariſes from the manners and inſtitutions of the Egyptians, and the ſtate of their country, which to many may appear more concluſive than any that I have hitherto mentioned. It is a fact that cannot be diſputed, that Egypt, in antient times, I mean before the Perſian conqueſt, was the moſt populous country then known in the world *. Nor indeed can any man, from what is to be ſeen in Europe, have any idea of the populouſneſs of this country, ſuch as it is deſcribed to us by antient authors. For, not to mention the number of cities, which Herodotus ſays amounted to twenty thouſand, in the reign of Amaſis lib. 2. c. 177.; the ſame author informs us †, that, in one of their many proceſſions, that to the city of Bubaſtis, in honour of Diana, there would be ſometimes ſeven hundred thouſand men and women, beſides children, as he was informed by the natives. And the account he gives of the race of the fighting men ſhews us, that the numbers of the whole people muſt have been prodi-

* *Diodor. Sicul. lib.* 1. *cap.* 31. *edit. Weſſeling.*

† *Lib.* 2 *cap.* 60.

gious for a tract of country which is not near ſo large as what now goes by the name of *Egypt*; for it comprehended no more than what was overflowed by the river; ſo that a great deal of the country now called *Egypt* was then known, either under the name of *Arabia* towards the eaſt, (for antient Arabia was upon both ſides of the Arabian Gulph or *Red ſea*, as it is now called), or of *Libya* towards the weſt, antient Egypt being bounded on the eaſt by the Arabian mountains, where were the quarries out of which the pyramids were built, and on the weſt by the Libyan mountains *; and, tho' the length of it was conſiderable, the breadth of it, betwixt theſe two ridges of mountains, was no more than 200 *ſtadia* or 25 Engliſh miles †. The fighting men, he ſays, all together, were four hundred and ten thouſand in number, when Egypt was in its flouriſhing ſtate. So that, according to the ordinary computation, of one fourth of the whole number of people being able to bear arms, the number of this claſs of men in Egypt muſt have amounted to one million ſix hundred and forty thouſand. Now,

* *Herod. lib.* 2. *c.* 4

† *Ibid.*

the race of fighting men was, as Herodotus tells us, but one of ſeven claſſes into which the people were divided; and, if their number was ſo great, what muſt the number have been of huſbandmen, ſhepherds, ſailors, and artificers of every kind, not to mention the prieſts, who were in Egypt a very numerous race *? What enabled Egypt to maintain ſuch numbers was the nature of the country, where the land was not only more fruitful than the land of any other, but the river abounded exceedingly with fiſh, and alſo with herbs, which ſerved for the ſuſtenance of man. Their policy too and manners very much encouraged propagation: For every man in Egypt had as many wives as he choſe, except the prieſts, who married only one. Nor was expoſition of children allowed among them, as in Greece; but they were obliged to bring them all up, even ſuch as they had by female ſlaves, and without diſtinction whether they were lawful children, or what we call *baſtards*. And, leſt we ſhould think it impoſſible that they

* *Herodot. lib.* 2. *cap.* 165. *ſeqq. Diodor. lib.* 1. *cap.* 73. & 74. *p.* 84.

could rear ſo many children, the ſame author informs us†, that it was done at no coſt, the children for the greater part going about naked, and feeding upon reeds and other aquatic plants which grew in their river and marſhes*.

† *Diodor. Sicul. lib.* 1 *c.* 80. *p.* 91.

* Many other reaſons might be given, were this the proper place, why Egypt was ſo extremely populous. In the *firſt* place, it does not appear that the Egyptians bred and nouriſhed many animals, either for the purpoſe of labour or of food: For they did not plow with horſes and oxen as we do; nor indeed did they plow at all; but made uſe of ſwine only in the buſineſs of agriculture, ſowing their ſeed upon the new earth brought down by the river, and treading it in by ſwine, which they drove among it, after the manner deſcribed by Herodotus, *lib.* 2. *cap.* 14. And they appear to have made very little uſe of horſes in war, which are the animals of all thoſe we uſe maintained at the greateſt expence. And, with reſpect to the uſe of animals for diet, they ate but a very few. And it is evident that by far the greater part of ſo numerous a people muſt have eaten no fleſh at all. Now, it is evident, that every country muſt maintain a leſs number of men in proportion as it maintains a greater number of other animals. And therefore it is impoſſible that a country, where the people feed much upon fleſh, or where they maintain a great number of animals, and particularly of horſes, for the purpoſes of agriculture or carriage, and of war, and likewiſe for the uſe of vanity and eaſe, can be populous. *Secondly*, It does not appear that, in Egypt, any conſiderable part of the produce of the ground was employed in making fermented liquors, to enervate the bodies and ſhorten the

In ſuch circumſtances, it was of abſolute neceſſity, that they ſhould eaſe themſelves of their ſuperfluous numbers by ſending out colonies; a fact of which I could have had no doubt, though it had not been vouched by any hiſtory or record. And I imagine, that the warlike expeditions of Oſiris and Seſoſtris were undertaken, rather with a political view of eaſing themſelves of their ſuperfluous numbers, than of making conqueſts: For it does not appear that they retained, or attempted to retain, any of the countries that they over-ran, but only ſettled colonies in them. I therefore conſider Egypt as a hive that caſt off ſwarms from time to time, which ſpread themſelves all round on every ſide, carrying with them their religion and their arts, and, among other arts, that of language. And it appears to me, that thoſe ſwarms did not only ſettle in the Weſt, but alſo in the Eaſt.

lives of the inhabitants. They did not cultivate the vine; and, tho' they made ale of barley, I think it is certain that it could not be of common uſe, but the drink only of the better ſort. Now, a country where a great part of the produce of the earth is conſumed in making vinous, or, what is worſe, ſpiritous liquors, cannot, by the nature of things, be highly peopled.

For the Egyptians themſelves ſaid, that the Babylonians and Chaldeans were a colony from them *. And indeed I think it is highly probable, that the Chaldeans, who were the prieſts and philoſophers of the Babylonians, brought with them their religion and ſciences from Egypt. For, beſides the reſemblance which Diodorus has obſerved betwixt them and the Egyptian prieſts, there is, with reſpect to religion, a circumſtance of ſurpriſing conformity mentioned by Herodotus, which I think could not have been accidental †; and as there is not the leaſt reaſon to believe that the Egyptians borrowed any thing from any other country, unleſs it be Ethiopia, the country from whence, as I have ſaid, they probably came, we muſt ſuppoſe, that the Chaldeans took it from them.

* *Diodor. Sicul. lib.* 1. *cap.* 28. *p.* 32.

† He ſays, that in the temple of Jupiter Belus at Babylon, whoſe prieſts the Chaldeans were, none was permitted to paſs the night, except a woman, who was choſen for that purpoſe, and had no intercourſe with man. The ſame, he ſays, was practiſed in the temple of Jupiter in the Egyptian Thebes; and in both temples, there was a couch for the god, upon which they ſaid he repoſed during the night: ἐμοὶ δὲ πίσα λέγονται, ſays our author, *lib.* 1. *cap.* 182.

Further, it is a fact which cannot be doubted, that, when the Greeks under Alexander the Great came into India, they there found many monuments, both of Bacchus or Dionyſius, and Hercules; and eſpecially of the firſt, who, the Indians ſaid, came from the weſt with a great army, conquered the country, taught them agriculture and the uſe of wine, and other arts of civil and ſocial life *. Now, there is no man who knows any thing of antient hiſtory, that can believe that this conqueror of India was Bacchus the ſon of Semele, or Hercules the ſon of Amphitryon. And I think there can be little doubt who they were, when we find the hiſtory of two countries ſo remote as Egypt and India agreeing in the ſame ſtory: For the Egyptians related, that their Bacchus, whom they called *Oſiris*, (with whom their Hercules was contemporary), over-ran all the world known at that time with a great army, civilizing men, and teaching them the arts of life where-ever he came; and particularly, that he was in India, where he built

* See *Strabo, lib.* 15. *p.* 1008. & 1038.—*Arrian. Indica, cap.* 5.—and *expedit. Alexandri, lib.* 5. *c.* 1.

ſeveral cities, and, among others, a famous one, called *Nyſa*, and left beſides many other monuments of himſelf *. And there are at this day remarkable veſtiges in India to be found of Egyptian manners and cuſtoms; particularly the veneration of the cow †, and the diviſion of the people into certain tribes or *caſts* as they call them, each of which practiſes only one art or profeſſion, ſuch as war, agriculture, merchandiſe, &c. And I am diſpoſed to believe, that the arts and ſciences, of which it is certain the Indians have been in poſſeſſion for many ages, have riſen from ſeeds ſown there by the Egyptians ‡.

* *Diodor. Sicul. lib.* 1. *cap.* 19. *p.* 23.

† See, upon this ſubject, *La Croze, lib.* 6. *Hiſtor. Chriſt. Indor. p.* 430.

‡ See *Du Pon's* account of the language, philoſophy, and ſciences of the *Bramins* of India, in 26th vol. of the *Lettres edifiantes et curieuſes*. One ſcience it appears certain that the Indians as well as the Greeks got from Egypt, I mean aſtronomy: For the Indians repreſented the ſigns of the Zodiac by the ſame animals that the Egyptians and Greeks did; and ſome of thoſe repreſentations are at this day to be found in certain pagodas of India. See phil. tranſact. vol. 62. p. 353. The diviſion above mentioned of the people of India into certain tribes, practiſing different arts and trades, and the having a race of men ſet a part for religion and philoſophy, is a remarkable peculiarity, in which I think it is impoſſible,

Now, if we can believe that the Egyptians ſent out their colonies to ſo great a diſtance as India, or if we only believe that they went as far as the Euxine ſea, where the Colchians dwelt, whom Herodotus poſitively affirms to have been an Egyptian colony, we can hardly doubt of their ſending colonies to Greece; a country ſo much nearer to them, and to which they had ſo eaſy acceſs, both by ſea and land.

Thus I have endeavoured to ſhew, that even upon Herodotus's ſuppoſition, of the Pelaſgic being a barbarous language, altogether different from Greek, and that the Attic language was the only true Hellenic, there is the greateſt reaſon to believe, that the Attic itſelf was originally an Egyptian dialect, which came with an Egyptian colony into Attica. And upon this hypothe-

that the Indians and Egyptians could by accident agree. In ſhort, the conformity betwixt the two nations is ſo great, that it ſeems to be certain, that the one muſt have got their arts, ſciences, and religion from the other. Some moderns have ſuppoſed, that the Egyptians borrowed from the Indians. But this hypotheſis is altogether unſupported by fact, and antient authority, and is contradicted by the hiſtory of Egypt, and the traditions of India, as above related, and by what Herodotus tells us, that the Egyptians borrowed nothing from other nations.

ſis, I think, we may account for the poſſibility of that change of language which Herodotus ſays happened in Attica after the expulſion of the Pelaſgi. Theſe Pelaſgi poſſeſſed Attica before the arrival of Cecrops. This Herodotus very plainly intimates, when he tells us, that, while the Pelaſgi were maſters of what is now called *Greece*, the Athenians were Pelaſgi, and were called *Cranai;* then, under Cecrops their king, they were called *Cecropidae;* then, under Erechtheus, a ſucceeding king, their name was changed into *Athenians*, *&c* *. Now, if it be true, as I have endeavoured to ſhew, that the Pelaſgi ſpoke the Egyptian language, as they were at that time long from Egypt, it muſt have been a dialect of it different from that which was newly imported by Cecrops, and perhaps from a different part of the country. The Athenians therefore, in place of the old Egyptian of the Pelaſgi, may have learned a more modern dialect of it from this king and his followers. For, though it be almoſt impoſſible, that a whole people having once learned a regular-formed language, and been in uſe

* *Herodot. lib.* 8. *cap.* 44.

to ſpeak it for ſome time, ſhould unlearn it, and acquire another quite different; they may change one dialect of the ſame language for another, as we ſee men among us get free of their provincial dialect, and learn one more courtly and polite.

If the arguments that I have uſed to prove, that both races of the Greek nation were originally from Egypt, do not appear ſo convincing to the reader as they do to me, there are not wanting other proofs, and theſe more direct, of the Egyptian and Greek languages being originally the ſame. And, firſt, if it be true, as I have endeavoured to ſhew, that there is a reſemblance betwixt the Greek and the Hebrew, and if it be alſo true, that there is ſuch a ſimilarity betwixt the Hebrew and Egyptian as could not be accidental, it will follow of neceſſary conſequence, that there muſt have been a connection betwixt the Egyptian and Greek. Now, that there is ſuch a ſimilarity betwixt the Hebrew and Egyptian, is evident from the ſcattered remains of the Egyptian in the writings of the antients, which have been carefully collected by learned men, particularly Bochart and Thomaſſin, and

compared with the Greek. Some of theſe words are preſerved in the ſacred writings, and particularly the name *Moſes*, which it is ſaid Pharaoh's daughter impoſed upon the child that ſhe drew out of the river *, is, as I am certainly informed, a Hebrew word, ſignifying what it is ſaid in the text to denote, viz. *the being extracted, or drawn out.* And the name alſo which Pharaoh gave to Joſeph †, is likewiſe thought, by learned men, to be a Hebrew word, ſignifying *an interpreter of ſecret things* ‡.

Another proof more direct ſtill is, the conformity which is at this day to be found betwixt the Greek and the *Coptic*, that is, the remains of the old Egyptian, which ſtill continue to be ſpoken in Egypt. This conformity appears ſo great to the learned Kircher, that he thinks the one muſt be derived from the other; but he ſays it is difficult to determine whether the Greek be derived from the Egyptian, or the Egyptian from

* *Exodus, ch.* ii. *v.* 10.

† *Geneſ. ch.* xli. *v.* 45.

‡ See *Squire's Inquiry, p.* 171.

the Greek *. But this appears to me to be a queſtion very eaſily determined: For even the vanity of the Greeks never pretended, that the Egyptians had borrowed any arts from them of any kind, much leſs this moſt neceſſary art of life. Nor do I know that any other nation ever boaſted of the Egyptians being obliged to them for any invention, except the Ethiopians, who, as I have ſaid, were originally the ſame people.

Other arguments might be uſed to ſhew the conformity betwixt the Egyptian and the antient language of Greece; ſome of which Mr Squire, in the Inquiry above quoted, has very well enforced; ſuch as the authority and aſcendant which ſingle Egyptian ſtrangers gained over the people of Greece, and which it is hardly poſſible to conceive how they ſhould have gained, if they had been entirely ignorant of the language of the country: And how ſhould thoſe many Greek ſtrangers that travelled into Egypt in antient times, ſuch as Orpheus, Muſaeus, Linus, Homer, &c. have been ſo ſucceſsful in learning and importing into Greece the

* *Squire's Inquiry, p.* 175.

religion and arts of Egypt, if they had been obliged to undergo the drudgery of acquiring a language quite different from their own, as well as of learning thoſe arts? But I think enough has been ſaid already to make it highly probable, and indeed as certain as any matter of ſuch remote antiquity can be, that Egypt was the parent-country, at leaſt with reſpect to Europe and the weſtern parts of Aſia, of language, as well as of other arts.

But was this language, ſo far ſpread, invented in Egypt, as well as derived from thence to the ſeveral countries where it was ſpoken? This is a queſtion that cannot, like the one we have been ſpeaking of concerning the propagation of languages, be decided by hiſtory and facts, but is a matter of argument and probable conjecture. One thing, I think, cannot be denied, that Egypt, of all the countries in this part of the globe, is that where it is the moſt likely a language of art ſhould have been invented. In any country where any common buſineſs was carried on by men, a barbarous jargon, ſuch as we have deſcribed, may have been invented; and, I am perſuaded, many ſuch were invented in diffe-

rent parts of the world: But, without the cloſeſt intercourſe of ſocial life, it appears to me impoſſible, that an art of ſuch refinement as the art of language could have been diſcovered. Now, ſuch intercourſe there is not among ſavages that ſubſiſt by hunting, fiſhing, or the natural fruits of the earth. It is to be found only among men that ſubſiſt by agriculture, and live in cities, under regular forms of government. Now, the Egyptians were certainly the firſt people in the neighbourhood of Europe who lived in that way, being obliged to do ſo by the nature of their country. For, as their land was under water a conſiderable part of the year, they could not ſubſiſt by hunting or paſturage, nor without agriculture, at leaſt in any great number; and it was neceſſary for them to have cities or villages, ſuch as we know thoſe of Egypt were, raiſed upon mounds of earth, in which they might live in the time of the inundation. This nature of their country, it is admitted, gave birth to geometry among them, and, I am perſuaded, to many other arts. They were likewiſe the firſt people, as far as we know, that were civilized, and lived under a regular

government. For theſe reaſons, I think it is probable, that they firſt invented the art of language, as well as the art of noting it by alphabetical characters, and every other art and ſcience of which we are in poſſeſſion. And accordingly it is recorded in the Egyptian annals, that *Teuth*, or *Hermes*, as he was called by the Greeks, invented the grammatical, as well as the writing art; giving a form to language, and impoſing names upon things that had none before *.

But was this language, which I ſuppoſe may have been invented in Egypt, and carried to ſo many different countries, propagated all over the earth? Are we to believe that the Huron †, the Algonkin, the

* *Diodor. Sicul. lib.* 1. *cap.* 15. *p.* 19. His words are: Ὑπο γαρ τουτου (Ἑρμου) πρωτου μεν την τε κοινην διαλεκτον διαρθρωθηναι, και πολλα των ανωνυμων τυχειν προσηγοριας. From which it appears, that there was a language uſed in Egypt before Teuth; but he firſt diſtinguiſhed it properly by articulation, and gave names to things. For, before him, it would ſeem, that the Egyptians uſed only *verba quibus voces ſenſuſque notarent*, but had not invented *nomina*, or *names*; at leaſt not names for every thing. See alſo, concerning this Teuth, Plato *in Philebo, p.* 18.; *et in Phaedro, p.* 274.; *Plutarch, tom.* 2. *p.* 738.

† The Huron language may, I think, be ſuppoſed to have been invented by the people who ſpeak it: For the Hurons appear to be the moſt antient nation in that

Caribbee, and all the many different languages ſpoken in North and South America; the language of Otaheite, and the other iſlands or continents that may be in the great Pacific ocean; the hiſſing language of the Troglodytes in Abyſſinia; or the muttering jargon of thoſe ſavages, mentioned by Condamin, upon the banks of the river Amazons, ſpoken, as he ſays, by drawing in the breath; or the language, if they

part of the world; and, tho' they be now almoſt exterminated by the Iroquois, or five nations, they were once the moſt powerful and moſt numerous nation in North America. For, at the time when Gabriel Sagard wróte, which was about 1630, they were a ſedentary nation, as he calls them, the reſt of the nations in that part of the world being for the greater part errant; p. 128. They had five and twenty towns and villages, the greateſt of which conſiſted of two hundred large cabins, or houſes, made of the bark of trees, each containing four and twenty families; p. 116. and 120. And he tells us, that they ſubſiſted, for the greater part, by agriculture. And indeed it was impoſſible that ſo many could be maintained in a country where the winter is ſo ſevere, without that art. So that here we have men living together in towns and villages, and ſo many, under one roof, practiſing the arts of hunting, fiſhing, and agriculture, and conſequently in ſuch a cloſe intercourſe or ſociety, as we ſuppoſe gave birth to the invention of language in Egypt.

have any, of the men with tails in the iſland of Nicobar, are all dialects of the ſame parent-language, which I ſuppoſe to have been invented in Egypt? This might be credible, if there were any hiſtory or tradition of all the world being peopled by colonies from that country, or if there were any ſuch conformity of thoſe languages laſt mentioned, either with one another, or with the language of Egypt, as is to be found in the other languages above mentioned; if, for example, they agreed in religious terms, in words expreſſing numbers, or relations of perſons, or any other capital words of neceſſary and frequent uſe. But the fact is, that, as far as we know of thoſe languages, they differ totally from one another, particularly in the names of numbers. Of theſe I have given ſpecimens from the Huron, the Algonkin, and the Otaheite languages, all differing extremely from one another; and it is impoſſible, I ſhould think, to connect them with the ſame names in any of the languages that I ſuppoſe to be derived from Egypt. I have given alſo the name of the number *three* uſed by thoſe ſavages upon the banks of the river Ama-

zons, which he muſt be an able etymologiſt indeed who can derive from any Hebrew root; and I think I may ſay the ſame of the Eſquimaux words expreſſing *much* and *little*.

I cannot therefore carry the propagation of language further than I have done. I think it probable, that all the languages ſpoken in Europe, all Aſia, if you will, and ſome part of Africa, are dialects of one parent-language, which probably was invented in Egypt. But I am not warranted to go further, either by the reaſon of the thing, by hiſtorical facts, or by any thing I can diſcover in the languages themſelves. Some, I know, are very fond of the ſyſtem of an univerſal language; but, when they come to prove it by facts, and by the languages themſelves, I think they fail very much; as may be ſeen from that dictionary of univerſal language which Monſ. Bullet has ſubjoined to his Celtic dictionary. Whatever therefore we may believe of there haing been once but one language upon the face of the earth, we muſt, I think, allow that it is now either totally loſt in a great part of the earth, or ſo depraved and corrupted as no longer to be known.

CHAP. XIV.

Changes to which Language is liable;—eſpecially in its Paſſage from one People to another.—Examples of that Kind.—General Obſervations upon Etymology, and the Derivation of one Language from another.—Concluſion and Recapitulation.

ALthough language be of a nature ſo durable, that I doubt whether there be an example of a language of art being totally loſt; yet it is extremely mutable as to its form and faſhion; as mutable, I believe, as any thing belonging to man. Words, ſays Horace, are as liable to change and decay as the leaves of trees:

Ut ſylvae foliis pronos mutantur in annos;
Prima cadunt; ita verborum vetus interit aetas,
Et juvenum ritu florent modo nata, vigentque.
Debemur morti nos noſtraque.

HOR. *Ars Poët.*

Thus the languages ſpoken in the ſeveral nations of Europe only three hundred years ago, are ſo different from the preſent, that, if we can underſtand them at all, it is only by the help of learned critics who have compoſed gloſſaries and dictionaries of them. Nor is there any way of fixing and giving a ſtandard to a language, otherwiſe than by written records, that is, by books, one or more, which are allowed to be perfect in their ſtyle and compoſition. Thus, though there can be no doubt that the Greek language underwent many variations before the days of Homer, his poems fixed the ſtandard of it; ſo that there was no conſiderable variation of it from his time down to the taking of Conſtantinople by the Turks; that is, for the ſpace of near three thouſand years: For we have at that time books written in Greek with as much purity of ſtyle, and almoſt as much elegance, as any written in any preceeding period. The Engliſh language, in like manner, was in a conſtant ſtate of fluctuation down to the reign of James I. when it was fixed by the tranſlation of the Bible, which is the ſtandard of our language as well as of our faith; and every variation that has been made from it

is, in my opinion, for the worſe. And to give one example more, the ſtandard of the Arabic was in the ſame manner fixed by their religious record, the Koran, which is held to be ſo perfect in its ſtyle and compoſition, that it is uſed by the Mahometan doctors, as a proof of the divine miſſion and inſpiration of their prophet, who being an illiterate man, they ſay, could not otherwiſe have compoſed ſuch a book. And by this method of record, as I obſerved before, the life of a language is perpetuated, and it ſtill exiſts after it ceaſes to be a living language; and perhaps in greater purity, and with leſs hazard of corruption, than while it continued to be ſpoken.

But, if a language be thus liable to change while it is in the mouths of the ſame people, how much more altered muſt it be when it is derived to different tribes and nations, living perhaps in parts very remote from the mother-country of the language, under the influence of different climates, cuſtoms, and manners, and mixing with other nations ſpeaking different languages? In ſuch a caſe, to diſtinguiſh the mother from the child, or even to perceive any connection betwixt the two, is a matter of great learn-

ing and nice diſcernment. It is in this that the art of that part of grammar we call *etymology* conſiſts; and if, in tracing the progreſs of a language from one nation to another, the derivations appear ſometimes to be forced and far-fetched, we muſt not therefore reject them. The French, Spaniſh, and Italian, are undoubtedly derived from the Latin; and yet how different are the words in thoſe languages from the Latin words? The author of the Mechaniſm of language, whom I quoted, in the beginning of this work, has given us ſundry examples of the ſurpriſing change that words have undergone in their paſſage from the Latin into thoſe languages: I will add ſome few more. Who would think that the French words *Vendredi*, *noël*, and *careſme*, or *carême*, as they write it now, came from the Latin words *Venus*, *natalis*, and *quadrageſimus* *; yet nothing is more certain: For *Vendredi* is from *Veneris dies*, by cutting off the termination *-is* of *Veneris*, tranſpoſing the *r* and *e*, and inſerting a *d* betwixt the *n* and *r*; and then by cutting off the termination

* Theſe examples are furniſhed me by *Ogerius*, the Italian author above mentioned, who writes upon the affinity of the Greek and Latin with the Hebrew, p. 84.

-es from the word *dies*. *Noël* is formed from *natalis*, by ſtriking out the *t*, changing the two *a's* into *o* and *e*, and taking away the termination *is*; which laſt is commonly done in the words which the French have taken from the Latin. Thus, in place of *ventus*, they ſay *vent*. And from *quadrageſimus*, *careſme* is derived, by cutting off in like manner the termination *us*, changing the *qu* in the beginning of the word into the conſonant *c* of like ſound, and abridging the reſt of the word, by throwing out the conſonants *d* and *g*, and the vowels *a* and *i*.

I will give one example more, from our Engliſh language. Who would think that the word *ſtranger* was derived from the Latin prepoſition *ex?* and yet there is no genealogy of a word more certain: For, from *ex* comes *extra*; from *extra*, *extraneus*; from *extraneus*, the French word *eſtranger*, (for ſo they ſpelled it of old); and from *eſtranger* comes our Engliſh word *ſtranger*, by throwing out the initial *e*, as happens in ſeveral words, particularly the word *eſcuage*, from which comes the Engliſh word *ſcutage*, ſignifying the aſſeſſment which a knight who was armed with a *ſcutum*, or ſhield, paid for the diſpenſation of perſonal ſervice.

It would be beſide the purpoſe of this work to dwell longer upon the particulars of etymology and derivation, and the changes which a language undergoes in its paſſage from one nation to another. What I have further to ſay upon this ſubject will be more proper when I come to ſpeak of the corruption of language, which will be the ſubject of the laſt part of my work. I will therefore conclude this part with two or three general obſervations.

And, in the *firſt* place, We are to diſtinguiſh betwixt a dialect of a language and the corruption of a language. The Attic, Ionic, Doric, and Eolic, are all dialects of the original Pelaſgic or Hellenic, but none of them corruptions of it. Neither is the Latin a corruption of the Greek, but a dialect; only it is a dialect that came off very early, and was not ſo much cultivated and improved as the other dialects above mentioned. It therefore has not all the numbers, voices, and tenſes of thoſe dialects, nor that variety of flection and copiouſneſs of ſound in which the Greek language ſo much excels all others that I know. It appears to me, from comparing the remains of old Latin, yet extant, with the later Latin,

that the Romans, when they came to be a great people, and to apply to arts and ſciences, poliſhed and improved their language upon the model of the Greek, by clearing it of the ruſt of the antient Pelaſgic, or of what mixture of a more barbarous language there may have been in it. And this I take to be what Plutarch means when he ſays, that the later Latin was much liker the Greek than the antient.

On the other hand, the French, Spaniſh, and Italian, are clearly corruptions of the Latin, by which the analogy, that makes ſo great a part of the art of language, is loſt, and the words almoſt all made indeclinable.

It is not eaſy, merely by a compariſon of the languages, to ſay, whether the worſt of the two be the corruption of the other, or the original language out of which it is formed and improved by the addition of proper terminations and flections. Thus it would be difficult to determine, whether the Pelaſgic, Hebrew, or Egyptian, was a corruption of the Greek, or whether they were the parent-languages out of which the Greek was formed, if we did not know from hiſtory, that thoſe languages were much more antient than the Greek. In the ſame man-

ner, it would not be eaſy to decide, whether the Engliſh, or any other dialect of the Teutonic preſently ſpoken in Europe, was a corruption of the Gothic and Saxon, or whether the Gothic and Saxon were an improvement of the Engliſh, if we did not know from hiſtory, that the moſt perfect of them is the moſt antient: For the Gothic is a more perfect language than the Saxon, having, as I have ſhewn, almoſt as much variety of termination and flection as the Greek, and the Saxon is more perfect than the Engliſh. The caſe, therefore, with reſpect to thoſe dialects of the Teutonic, is juſt the reverſe of what has happened with reſpect to the Greek and Latin, which are improvements of their parent-languages: Whereas the Engliſh, and other dialects of the Teutonic, are ſo many corruptions of theirs.

Another obſervation is, That, in judging of the affinity of languages, we are to have little regard to the vowels, but chiefly to conſider the conſonants. For, as I obſerved when I was explaining the nature of articulate ſounds, it is the conſonants which break and diſtinguiſh the voice moſt, and

make the principal part of articulation. The conſonants therefore may be ſaid to be the bones and ſinews of a language, while the vowels are little more than the vehicles of breath by which they are enunciated. Accordingly, in the Hebrew, many learned men are of opinion, that no points or marks of vowels were originally uſed. And the fact undoubtedly is, that at this day the Arabians, in common writing, uſe no ſuch marks, but only in tranſcribing the Alcoran, or any of their antient poems, for which they have a particular eſteem, in order to prevent all poſſibility of miſtake. In the different dialects of the Greek, we ſee how the vowels are changed; and in the ſame dialect the caſes and tenſes, and, in general, the declenſion of their words is in a great meaſure by change of the vowels. Nor does the change of the vowel appear to me to be ſo material a thing in the Greek language, as the change of the time, or quantity of it: For we often ſee one ſhort vowel changed for another, or one long vowel for another, in the different dialects; but ſeldom a ſhort for a long, or a long for a ſhort.

But the change even of conſonants does not often make ſo great a change of the word

as might be expected: For conſonants of the ſame organ are eaſily interchanged. Thus, *b*, *p*, *v*, *f*, being all labial conſonants, are frequently interchanged in many languages *. And in Greek, γ, κ, ξ, χ, which are all palatine conſonants, are commonly changed into one another; particularly in the flec-

* β and μ are conſonants of different kinds, the one being a mute, the other a liquid; yet, as they are both of the ſame organ, being both labial, though the β be pronounced by the opening and exploſion of the lips, the other, by cloſing them with a beat or chop, they too are interchanged. Thus μορος is a Greek word, which ſignifies *fatum*, from whence the Latin *mors* and *morior*, and the Greek word μορτος, ſignifying *homo*, or *mortalis*, as in that paſſage of *Callimachus*, ἰδυμαμεν αστια μορτοι. Now, the μ being changed into β, (which was the cuſtom of the Eolians; for, in place of μυρμηξ, they ſaid βυρμαξ, from whence the Latin *formica*) and the ο and ρ tranſpoſed, which is alſo very common, it becomes βροτος, which is the common Greek word for *homo* or *mortalis*. This obſervation, I ſee, is made in one of the philological letters of Dr Baxter, publiſhed by the ſociety of antiquaries in London. It ſhews how much words in the ſame language, ſpoken by the ſame people, will change. But how much greater muſt the change be in the paſſage of a language from one people to another? We ought not therefore raſhly to reject thoſe derivations which learned men have diſcovered of Greek and Latin words from Hebrew, Celtic, or Teutonic roots, though the words do not agree in their conſonants any more than in their vowels.

tion of nouns and verbs; and the ſoft, middle, and aſpirated mute conſonants of the ſame order, are very often changed into one another in the different dialects. Thus δ is the middle conſonant betwixt the τ and the θ; and therefore the Latins, in place of the Greek θεὸς, ſay *Deus*.

The laſt obſervation I ſhall make is, That they appear to me to be much miſtaken, who think we ought to judge of the affinity of languages chiefly by the flection or analogy, and not by the word itſelf, or by its termination: For theſe are the three things, as I obſerved, by which we determine the relation of languages to one another. But, on the contrary, I maintain, that it is the mark of likeneſs which leaſt of all is to be regarded: For, if we were to judge by that rule, we could not ſay that the French, Spaniſh, or Italian, are derived from the Latin; becauſe the flection, as well as the termination, and in general the grammar, of thoſe languages, is very different from that of the Latin. But the caſe truly is, that, if the one language be a corruption of the other, as the languages juſt now mentioned are of the Latin, the flection, and very often the termination, will be diffe-

rent: Or, if the one language be at a diſtance from the ſource, and be much more cultivated and improved than the parent-language, its flections or analogy will be very different; and if it be at a great diſtance, its terminations will alſo be different. Thus, the Greek, being further removed from the Oriental languages than the Latin, has both its flections and its terminations quite different: Whereas the Latin, not being ſo far removed, though it have different flections, has, as we have ſhewn, a great ſimilarity to thoſe languages in its terminations.

With theſe obſervations I conclude this book, and this firſt part of the work; in which I have endeavoured to ſhew, That no part of language, neither *matter* nor *form*, is natural to man, but the effect of acquired habit:—That this habit could not have been acquired, except by men living in political ſociety; but that neither is the political life natural to man:—That the political life aroſe from the neceſſities of men, and that it may exiſt without the uſe of language:—That the firſt languages were without art, ſuch as might be expected among people altogether barbarous:—And, laſtly, That, if language

was at all invented, there is no reaſon to believe that it was invented only in one nation, and that all the languages of the earth are but dialects of that one original language; although there be good reaſon to believe, that language has not been the invention of many nations, and that all thoſe preſently ſpoken in Europe, Aſia, and a part of Africa, are derived from one original language.

The End of PART I.